



(12) **United States Patent**
Crumly

(10) **Patent No.:** **US 9,298,363 B2**
(45) **Date of Patent:** **Mar. 29, 2016**

(54) **REGION ACTIVATION FOR TOUCH SENSITIVE SURFACE**

(75) Inventor: **Lyndley Crumly**, Frazier Park, CA (US)

(73) Assignee: **APPLE INC.**, Cupertino, CA (US)

(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.

5,566,337 A	10/1996	Szymanski et al.
5,570,113 A	10/1996	Zetts
5,583,543 A	12/1996	Takahashi et al.
5,589,856 A	12/1996	Stein et al.
5,627,567 A	5/1997	Davidson
5,627,959 A	5/1997	Brown et al.
5,676,064 A	10/1997	Shuert
5,686,940 A	11/1997	Kuga
5,698,822 A *	12/1997	Haneda et al. 178/18.01

(Continued)

FOREIGN PATENT DOCUMENTS

AU	2007283771	4/2007
CA	2755443 A1	9/2010

(Continued)

OTHER PUBLICATIONS

Allen, J., "Override the GNU C library—painlessly," ibm.com, Apr. 2002, 4 pages.

(Continued)

(21) Appl. No.: **13/084,472**

(22) Filed: **Apr. 11, 2011**

(65) **Prior Publication Data**

US 2012/0256849 A1 Oct. 11, 2012

(51) **Int. Cl.**
G06F 3/0488 (2013.01)

(52) **U.S. Cl.**
CPC **G06F 3/04883** (2013.01)

(58) **Field of Classification Search**
CPC G06F 3/04886; G06F 3/04883; G06F 3/04842
USPC 345/173
See application file for complete search history.

Primary Examiner — Claire X Pappas

Assistant Examiner — Robert Stone

(74) *Attorney, Agent, or Firm* — Morgan, Lewis & Bockius LLP

(57) **ABSTRACT**

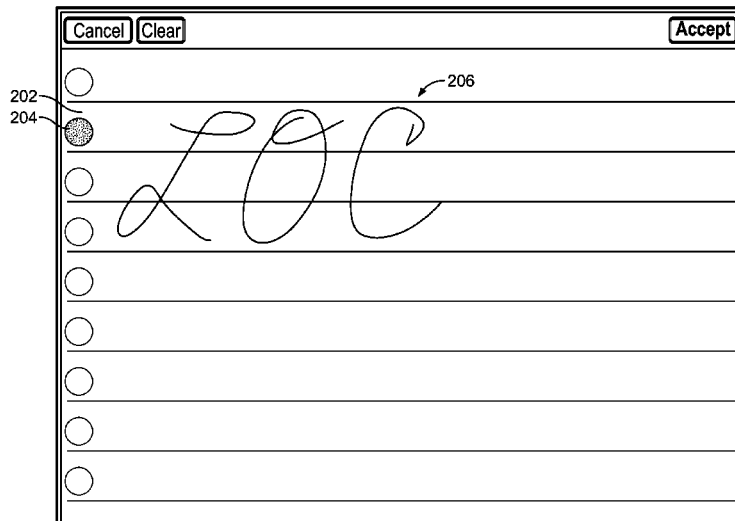
One or more regions of a touch sensitive surface can be activated individually by a user. A region defines an active input area for processing touch input events. Any touch event associated with a beginning touch event that is detected in the active area is processed for display. Any touch input event detected outside the active region that is not associated with the beginning touch event is excluded from the processing. Once a writing gesture is started in the active region, the writing gesture can extend outside of the active region so long as the writing gesture is associated with the beginning touch event.

24 Claims, 4 Drawing Sheets

(56) **References Cited**

U.S. PATENT DOCUMENTS

4,455,452 A	6/1984	Schuyler
5,046,434 A	9/1991	Breezer et al.
5,233,547 A	8/1993	Kapp et al.
5,252,951 A	10/1993	Tannenbaum et al.
5,454,960 A	10/1995	Newsom
5,463,725 A	10/1995	Henckel et al.
5,488,204 A	1/1996	Mead et al.
5,495,566 A	2/1996	Kwatinetz
5,513,309 A	4/1996	Meier et al.
5,534,893 A	7/1996	Hansen, Jr. et al.
5,564,112 A	10/1996	Hayes et al.



(56)

References Cited

U.S. PATENT DOCUMENTS

5,708,460	A	1/1998	Young et al.	7,181,373	B2	2/2007	Le Cocq et al.
5,745,116	A	4/1998	Pisutha-Armond	7,184,796	B2	2/2007	Karidis et al.
5,798,752	A	8/1998	Buxton et al.	7,240,291	B2	7/2007	Card et al.
5,818,455	A	10/1998	Stone et al.	7,337,412	B2	2/2008	Guido et al.
5,844,547	A	12/1998	Minakuchi et al.	7,346,850	B2	3/2008	Swartz et al.
5,864,636	A *	1/1999	Chisaka 382/189	7,358,965	B2 *	4/2008	Barabe et al. 345/179
5,867,158	A	2/1999	Murasaki et al.	7,385,592	B2	6/2008	Collins
5,880,411	A	3/1999	Gillespie et al.	7,469,381	B2	12/2008	Ording
5,903,902	A	5/1999	Orr et al.	7,487,447	B1	2/2009	Jerger
5,917,477	A	6/1999	Lee	7,499,027	B2	3/2009	Brigham, II et al.
6,028,602	A	2/2000	Weidenfeller et al.	7,561,159	B2	7/2009	Abel et al.
6,034,688	A	3/2000	Greenwood et al.	7,564,448	B2	7/2009	Yi
6,035,343	A	3/2000	Tsushima et al.	7,576,732	B2	8/2009	Lii
6,061,063	A	5/2000	Wagner et al.	7,614,008	B2	11/2009	Ording
6,089,371	A	7/2000	Lin	7,653,883	B2	1/2010	Hotelling et al.
6,141,018	A	10/2000	Beri et al.	7,663,607	B2	2/2010	Hotelling et al.
6,188,391	B1	2/2001	Seely et al.	7,673,255	B2	3/2010	Schechter et al.
6,259,436	B1	7/2001	Moon et al.	7,724,242	B2	5/2010	Hillis et al.
6,323,846	B1	11/2001	Westerman et al.	7,750,893	B2	7/2010	Hashimoto et al.
6,369,821	B2	4/2002	Merrill et al.	7,786,975	B2	8/2010	Ording et al.
6,446,083	B1	9/2002	Leight et al.	7,812,826	B2	10/2010	Ording et al.
6,486,896	B1	11/2002	Ubillos	7,843,427	B2	11/2010	Ording et al.
6,489,951	B1	12/2002	Wong et al.	7,844,915	B2	11/2010	Platzer et al.
6,498,590	B1	12/2002	Dietz et al.	7,864,037	B2	1/2011	Miller
6,559,869	B1	5/2003	Lui et al.	7,872,652	B2	1/2011	Platzer et al.
6,567,102	B2	5/2003	Kung	7,900,156	B2	3/2011	Andre et al.
6,570,557	B1	5/2003	Westerman et al.	7,903,115	B2	3/2011	Platzer et al.
6,570,594	B1	5/2003	Wagner	7,917,584	B2	3/2011	Arthursson
6,590,595	B1	7/2003	Wagner et al.	7,925,996	B2	4/2011	Hofmeister et al.
6,628,835	B1	9/2003	Brill et al.	7,941,760	B2	5/2011	Kocienda et al.
6,636,242	B2	10/2003	Bowman-Amuah	7,962,862	B2	6/2011	Kulp et al.
6,639,584	B1	10/2003	Li	7,966,578	B2	6/2011	Tolmasky et al.
6,661,409	B2	12/2003	DeMartines et al.	8,051,406	B2	11/2011	Knight et al.
6,664,989	B1	12/2003	Snyder et al.	8,091,045	B2	1/2012	Christie et al.
6,677,932	B1	1/2004	Westerman	8,112,299	B2	2/2012	Kim et al.
6,677,965	B1	1/2004	Ullmann et al.	8,115,744	B2	2/2012	Kong et al.
6,690,387	B2	2/2004	Zimmerman et al.	8,135,171	B2	3/2012	Ho et al.
6,707,449	B2	3/2004	Hinckley et al.	8,140,570	B2	3/2012	Ingrassia et al.
6,714,936	B1	3/2004	Nevin, III	8,171,432	B2	5/2012	Matas et al.
6,735,583	B1	5/2004	Bjarnestam et al.	8,174,502	B2	5/2012	Bolsinga et al.
6,741,996	B1	5/2004	Brechner et al.	8,214,768	B2	7/2012	Boule et al.
6,757,673	B2	6/2004	Makus et al.	8,239,784	B2	8/2012	Hotelling et al.
6,765,557	B1	7/2004	Segal et al.	8,253,695	B2	8/2012	Ganatra et al.
6,778,992	B1	8/2004	Searle et al.	8,285,499	B2	10/2012	Moore et al.
6,809,724	B1	10/2004	Shiraishi et al.	8,289,289	B2	10/2012	Rimon et al.
6,820,237	B1	11/2004	Abu-Hakima et al.	8,291,344	B2	10/2012	Chaudhri
6,831,631	B2	12/2004	Chuang	8,296,332	B2	10/2012	Boley et al.
6,839,721	B2	1/2005	Schwols	8,310,459	B2	11/2012	Nurmi
6,856,326	B1	2/2005	Zhai	8,314,775	B2	11/2012	Westerman et al.
6,868,383	B1	3/2005	Bangalore et al.	8,400,416	B2	3/2013	Ho et al.
6,903,927	B2	6/2005	Anlauff	8,416,196	B2	4/2013	Williamson et al.
6,907,575	B2	6/2005	Duarte	8,428,893	B2	4/2013	Moore et al.
6,912,462	B2	6/2005	Okaki	8,434,003	B2	4/2013	Zalewski et al.
6,957,392	B2	10/2005	Simister et al.	8,436,815	B2	5/2013	Mazezev et al.
6,958,749	B1	10/2005	Matsushita	8,489,783	B2	7/2013	Wilson
6,963,937	B1	11/2005	Kamper et al.	8,560,975	B2	10/2013	Beaver et al.
6,972,776	B2	12/2005	Davis et al.	8,566,044	B2	10/2013	Shaffer et al.
6,975,306	B2	12/2005	Hinckley et al.	8,566,045	B2	10/2013	Shaffer et al.
6,985,137	B2	1/2006	Kaikuranta	8,570,277	B2	10/2013	Rekimoto
6,985,178	B1	1/2006	Morita et al.	8,645,827	B2	2/2014	Beaver et al.
7,009,599	B2	3/2006	Pihlaja	8,682,602	B2	3/2014	Moore et al.
7,009,626	B2	3/2006	Anwar	2001/0009033	A1	7/2001	Morisaki et al.
7,013,435	B2	3/2006	Gallo et al.	2001/0011998	A1	8/2001	Agata et al.
7,023,427	B2	4/2006	Kraus et al.	2001/0012001	A1	8/2001	Rekimoto et al.
7,046,230	B2	5/2006	Zadesky et al.	2001/0028369	A1	10/2001	Gallo et al.
7,062,090	B2 *	6/2006	Simmons et al. 382/189	2001/0045949	A1	11/2001	Chithambaram et al.
7,075,512	B1	7/2006	Fabre et al.	2002/0015024	A1	2/2002	Westerman et al.
7,084,859	B1	8/2006	Pryor	2002/0015064	A1	2/2002	Robotham et al.
7,088,374	B2	8/2006	David et al.	2002/0036618	A1	3/2002	Wakai et al.
7,102,626	B2	9/2006	Denny, III	2002/0067854	A1 *	6/2002	Reintjes G06F 3/0488 382/199
7,117,453	B2	10/2006	Drucker et al.	2002/0101418	A1	8/2002	Vernier et al.
7,152,210	B1	12/2006	Van Den Hoven et al.	2002/0191029	A1	12/2002	Gillespie et al.
7,154,534	B2	12/2006	Seki et al.	2002/0194589	A1	12/2002	Cristofalo et al.
7,155,048	B2	12/2006	Ohara	2003/0071850	A1	4/2003	Geidl
7,173,623	B2	2/2007	Calkins et al.	2003/0071858	A1	4/2003	Morohoshi
				2003/0080946	A1 *	5/2003	Chuang 345/173
				2003/0095096	A1	5/2003	Robbin et al.
				2003/0095135	A1	5/2003	Kaasila et al.

(56)

References Cited

U.S. PATENT DOCUMENTS

2003/0095697	A1	5/2003	Wood et al.	2006/0097991	A1	5/2006	Hotelling et al.
2003/0122787	A1	7/2003	Zimmerman et al.	2006/0112335	A1	5/2006	Hofmeister et al.
2003/0132959	A1	7/2003	Simister et al.	2006/0123353	A1	6/2006	Matthews et al.
2003/0146941	A1	8/2003	Bailey et al.	2006/0125799	A1	6/2006	Hillis et al.
2003/0160832	A1	8/2003	Ridgley et al.	2006/0125803	A1	6/2006	Westerman et al.
2003/0174149	A1	9/2003	Fujisaki et al.	2006/0136833	A1	6/2006	Dettinger et al.
2003/0184525	A1	10/2003	Tsai	2006/0156249	A1	7/2006	Blythe et al.
2003/0197689	A1	10/2003	May	2006/0161871	A1	7/2006	Hotelling et al.
2003/0197744	A1	10/2003	Irvine	2006/0181510	A1	8/2006	Faith
2003/0210258	A1	11/2003	Williams	2006/0187215	A1	8/2006	Rosenberg et al.
2003/0214531	A1	11/2003	Chambers et al.	2006/0190833	A1	8/2006	SanGiovanni et al.
2003/0222917	A1	12/2003	Trantow	2006/0197753	A1	9/2006	Hotelling
2004/0001627	A1*	1/2004	Simmons et al. 382/186	2006/0236263	A1	10/2006	Bathiche et al.
2004/0021676	A1	2/2004	Chen et al.	2006/0238495	A1	10/2006	Davis
2004/0021698	A1	2/2004	Baldwin et al.	2006/0242602	A1	10/2006	Schechter et al.
2004/0027398	A1	2/2004	Jaeger	2006/0242607	A1	10/2006	Hudson
2004/0039474	A1	2/2004	Kontani	2006/0262104	A1	11/2006	Sullivan et al.
2004/0070573	A1*	4/2004	Graham 345/179	2006/0279548	A1	12/2006	Geaghan
2004/0080541	A1	4/2004	Saiga et al.	2006/0284792	A1	12/2006	Foxlin
2004/0095387	A1	5/2004	Demsey et al.	2007/0008066	A1	1/2007	Fukuda
2004/0100479	A1	5/2004	Nakano et al.	2007/0013697	A1	1/2007	Gilboa
2004/0125136	A1	7/2004	Wallenius	2007/0024646	A1	2/2007	Saarininen et al.
2004/0135817	A1*	7/2004	Daughtery et al. 345/823	2007/0036346	A1	2/2007	Kwon
2004/0155888	A1	8/2004	Padgitt et al.	2007/0046643	A1	3/2007	Hillis et al.
2004/0160419	A1	8/2004	Padgitt	2007/0050469	A1	3/2007	Gupta et al.
2004/0189721	A1	9/2004	Pettross et al.	2007/0055967	A1	3/2007	Poff et al.
2004/0210847	A1	10/2004	Berson et al.	2007/0061126	A1	3/2007	Russo et al.
2004/0215643	A1	10/2004	Brechner et al.	2007/0064004	A1	3/2007	Bonner et al.
2004/0222992	A1	11/2004	Calkins et al.	2007/0067745	A1	3/2007	Choi et al.
2004/0224638	A1	11/2004	Fadell et al.	2007/0075965	A1	4/2007	Huppi et al.
2004/0263486	A1	12/2004	Seni	2007/0081726	A1	4/2007	Westerman et al.
2005/0005241	A1	1/2005	Hunleth et al.	2007/0089069	A1	4/2007	Hsieh et al.
2005/0008343	A1	1/2005	Frohlich et al.	2007/0109275	A1	5/2007	Chuang
2005/0012723	A1	1/2005	Pallakoff	2007/0120835	A1	5/2007	Sato
2005/0017957	A1	1/2005	Yi	2007/0132789	A1	6/2007	Ording et al.
2005/0024341	A1	2/2005	Gillespie et al.	2007/0149252	A1	6/2007	Jobs et al.
2005/0027666	A1	2/2005	Beck, Jr. et al.	2007/0150826	A1	6/2007	Anzures et al.
2005/0057524	A1	3/2005	Hill et al.	2007/0150842	A1	6/2007	Chaudhri et al.
2005/0088443	A1	4/2005	Blanco et al.	2007/0152976	A1	7/2007	Townsend et al.
2005/0122806	A1	6/2005	Arakawa et al.	2007/0152978	A1	7/2007	Kocienda et al.
2005/0145807	A1	7/2005	Lapstun et al.	2007/0152979	A1	7/2007	Jobs et al.
2005/0162402	A1	7/2005	Watanachote	2007/0152984	A1	7/2007	Ording et al.
2005/0168488	A1	8/2005	Montague	2007/0155434	A1	7/2007	Jobs et al.
2005/0179648	A1*	8/2005	Barabe et al. 345/156	2007/0156364	A1	7/2007	Rothkopf
2005/0183035	A1	8/2005	Ringel et al.	2007/0157089	A1	7/2007	van Os et al.
2005/0193015	A1	9/2005	Logston et al.	2007/0174257	A1	7/2007	Howard
2005/0195154	A1	9/2005	Robbins et al.	2007/0176903	A1	8/2007	Dahlin et al.
2005/0198588	A1	9/2005	Lin et al.	2007/0177803	A1	8/2007	Elias et al.
2005/0210419	A1	9/2005	Kela et al.	2007/0177804	A1	8/2007	Elias et al.
2005/0237308	A1	10/2005	Autio et al.	2007/0185876	A1	8/2007	Mendis et al.
2005/0268247	A1	12/2005	Baneth	2007/0198926	A1	8/2007	Joguet et al.
2005/0270269	A1	12/2005	Tokkonen	2007/0214436	A1	9/2007	Myers
2005/0275618	A1	12/2005	Juh et al.	2007/0214462	A1	9/2007	Boillot
2005/0275636	A1	12/2005	Dehlin et al.	2007/0242056	A1	10/2007	Engelhardt et al.
2005/0282122	A1*	12/2005	Crawford G09B 11/04 434/159	2007/0242607	A1	10/2007	Sadler et al.
2006/0010400	A1	1/2006	Dehlin et al.	2007/0247435	A1	10/2007	Benko et al.
2006/0025218	A1	2/2006	Hotta	2007/0247442	A1	10/2007	Andre et al.
2006/0026521	A1	2/2006	Hotelling et al.	2007/0252821	A1	11/2007	Hollemans et al.
2006/0026535	A1	2/2006	Hotelling et al.	2007/0262964	A1	11/2007	Zotov et al.
2006/0026536	A1	2/2006	Hotelling et al.	2007/0277124	A1	11/2007	Shin et al.
2006/0026676	A1	2/2006	O'Donoghue	2007/0288856	A1	12/2007	Butlin et al.
2006/0028455	A1	2/2006	Hinckley et al.	2007/0291009	A1	12/2007	Wright et al.
2006/0031786	A1	2/2006	Hillis et al.	2008/0001923	A1	1/2008	Hall et al.
2006/0036955	A1	2/2006	Baudisch et al.	2008/0005703	A1	1/2008	Radivojevic et al.
2006/0038796	A1	2/2006	Hinckley et al.	2008/0012835	A1	1/2008	Rimon et al.
2006/0048073	A1	3/2006	Jarrett et al.	2008/0016096	A1	1/2008	Wilding et al.
2006/0055662	A1	3/2006	Rimas-Ribikauskas et al.	2008/0028327	A1	1/2008	Hirota et al.
2006/0055669	A1	3/2006	Das	2008/0034029	A1	2/2008	Fang et al.
2006/0061551	A1	3/2006	Fateh	2008/0036743	A1	2/2008	Westerman et al.
2006/0066588	A1	3/2006	Lyon et al.	2008/0043020	A1	2/2008	Snow et al.
2006/0077183	A1	4/2006	Studt	2008/0048978	A1	2/2008	Trent, Jr. et al.
2006/0077544	A1	4/2006	Stark	2008/0094356	A1	4/2008	Ording et al.
2006/0082549	A1	4/2006	Hoshino et al.	2008/0094368	A1	4/2008	Ording et al.
2006/0094502	A1	5/2006	Katayama et al.	2008/0104544	A1	5/2008	Collins et al.
				2008/0114614	A1	5/2008	Mahesh et al.
				2008/0120576	A1	5/2008	Kariathungal et al.
				2008/0122806	A1*	5/2008	Ahn 345/179
				2008/0158191	A1	7/2008	Yang et al.
				2008/0162751	A1	7/2008	Wilson

(56)

References Cited

U.S. PATENT DOCUMENTS

2008/0165132	A1	7/2008	Weiss et al.	
2008/0165136	A1	7/2008	Christie et al.	
2008/0165140	A1	7/2008	Christie et al.	
2008/0165141	A1	7/2008	Christie	
2008/0165160	A1	7/2008	Kocienda et al.	
2008/0166049	A1 *	7/2008	Wang et al.	382/189
2008/0168388	A1	7/2008	Decker	
2008/0168395	A1	7/2008	Ording et al.	
2008/0168402	A1	7/2008	Blumenberg	
2008/0168405	A1	7/2008	Tolmasky et al.	
2008/0172633	A1	7/2008	Jeon et al.	
2008/0207130	A1	8/2008	Kunii	
2008/0218489	A1	9/2008	Park et al.	
2008/0231610	A1	9/2008	Hotelling et al.	
2008/0316183	A1	12/2008	Westerman et al.	
2009/0049388	A1	2/2009	Taib et al.	
2009/0051671	A1	2/2009	Konstas	
2009/0058830	A1	3/2009	Herz et al.	
2009/0064047	A1	3/2009	Shim et al.	
2009/0207140	A1	8/2009	Hansson	
2009/0211891	A1	8/2009	Lai et al.	
2009/0225037	A1	9/2009	Williamson et al.	
2009/0225038	A1	9/2009	Bolsinga et al.	
2009/0225039	A1	9/2009	Williamson et al.	
2009/0228828	A1	9/2009	Beatty et al.	
2009/0228901	A1	9/2009	Beaver et al.	
2009/0231281	A1	9/2009	Whytock et al.	
2009/0244020	A1	10/2009	Sjolin	
2009/0251434	A1	10/2009	Rimon et al.	
2009/0259969	A1	10/2009	Pallakoff	
2009/0262087	A1	10/2009	Kim	
2009/0273571	A1	11/2009	Bowens	
2009/0282332	A1	11/2009	Porat	
2009/0284479	A1	11/2009	Dennis et al.	
2009/0300530	A1	12/2009	Falchuk	
2009/0304281	A1 *	12/2009	Yipu	382/187
2009/0309847	A1	12/2009	Russell et al.	
2009/0322687	A1	12/2009	Duncan et al.	
2009/0322699	A1	12/2009	Hansson	
2009/0322700	A1	12/2009	D'Souza et al.	
2010/0013676	A1	1/2010	Do et al.	
2010/0020025	A1	1/2010	Lemort et al.	
2010/0020221	A1	1/2010	Tupman et al.	
2010/0030612	A1	2/2010	Kim et al.	
2010/0046850	A1	2/2010	Ho et al.	
2010/0085323	A1	4/2010	Bogue	
2010/0107116	A1	4/2010	Rieman et al.	
2010/0146458	A1	6/2010	Wadekar	
2010/0149122	A1	6/2010	Lin	
2010/0156804	A1	6/2010	Young	
2010/0169841	A1 *	7/2010	Singh	715/863
2010/0177053	A2	7/2010	Yasutake	
2010/0182248	A1	7/2010	Chun	
2010/0235118	A1	9/2010	Moore et al.	
2010/0245267	A1	9/2010	Min et al.	
2010/0267449	A1	10/2010	Gagner et al.	
2010/0281435	A1	11/2010	Bangalore et al.	
2010/0283739	A1	11/2010	Zhang et al.	
2010/0299594	A1	11/2010	Zalewski et al.	
2010/0325575	A1	12/2010	Platzer et al.	
2011/0037714	A1	2/2011	Seo et al.	
2011/0047459	A1	2/2011	Van Der Westhuizen	
2011/0069021	A1 *	3/2011	Hill	345/173
2011/0090257	A1 *	4/2011	Ko et al.	345/660
2011/0102336	A1 *	5/2011	Seok et al.	345/173
2011/0102464	A1	5/2011	Godavari	
2011/0115745	A1	5/2011	Cabrera Cordon et al.	
2011/0167391	A1	7/2011	Momeyer et al.	
2011/0179380	A1	7/2011	Shaffer et al.	
2011/0179386	A1	7/2011	Shaffer et al.	
2011/0179387	A1	7/2011	Shaffer et al.	
2011/0181526	A1	7/2011	Shaffer et al.	
2011/0242032	A1	10/2011	Seo et al.	
2011/0252306	A1	10/2011	Williamson et al.	
2011/0252307	A1	10/2011	Williamson et al.	

2011/0252368	A1	10/2011	Anzures et al.
2011/0291951	A1	12/2011	Tong
2011/0295596	A1	12/2011	Hung et al.
2011/0310046	A1	12/2011	Beaver et al.
2011/0310047	A1	12/2011	Moore et al.
2011/0314430	A1	12/2011	Blumenberg
2011/0321125	A1	12/2011	Kyohgoku et al.
2012/0023509	A1	1/2012	Blumenberg
2012/0026104	A1	2/2012	Ho et al.
2012/0133579	A1	5/2012	Prieur et al.
2012/0278725	A1	11/2012	Gordon et al.
2013/0009986	A1	1/2013	Shah et al.
2013/0016039	A1	1/2013	Moore et al.
2013/0069899	A1	3/2013	Beaver et al.
2013/0244574	A1	9/2013	Okuno et al.
2013/0246861	A1	9/2013	Colley et al.
2014/0361982	A1	12/2014	Shaffer et al.

FOREIGN PATENT DOCUMENTS

CN	1326564	A	12/2001
CN	1331815	A	1/2002
CN	1422481	A	6/2003
CN	1695105	A	11/2005
CN	1704886	A	12/2005
CN	1797308	A	7/2006
CN	1841284	A	10/2006
CN	1845046	A	10/2006
CN	1860429	A	11/2006
CN	1967458	A	5/2007
CN	101410781	A	4/2009
CN	101526880	A	9/2009
CN	101529368	A	9/2009
CN	101727240	A	6/2010
DE	202007013923	U1	12/2007
DE	202005021427	U1	2/2008
EP	0538705	A1	4/1993
EP	0626635	A2	11/1994
EP	0635779	A1	1/1995
EP	0701220	A1	3/1996
EP	0712825	A1	5/1996
EP	0880091	A2	11/1998
EP	1 517 228	A2	3/2005
EP	1860539	A1	11/2007
EP	2031837	A2	3/2009
EP	2 141 576	A2	1/2010
EP	1964022	B1	3/2010
EP	2 184 673	A1	5/2010
EP	2 354 930	A1	8/2011
EP	2 390 766	A1	11/2011
GB	1517521	A	7/1978
GB	2 319 591	A	5/1998
GB	2 351 639	A	1/2001
GB	2373778	A	10/2002
GB	2 404 547	A	7/2003
JP	02-140822	A	5/1990
JP	03-271976	A	12/1991
JP	05 298002		11/1993
JP	06-149467	A	5/1994
JP	08-16314	A	1/1996
JP	H10-500509		1/1998
JP	H11-085354		3/1999
JP	2000-163031	A	6/2000
JP	2000-163443	A	6/2000
JP	2000 222130		8/2000
JP	2000-322199		11/2000
JP	2001027924		1/2001
JP	2001 290585		10/2001
JP	2003 296024		10/2003
JP	2003-330605		11/2003
JP	2005 056286		3/2005
JP	2005 082086		3/2005
JP	2005-165532		6/2005
JP	2005 242669		9/2005
JP	2005 322088		11/2005
JP	2006-085356		3/2006
JP	2006-085703		3/2006
JP	2006 102275		4/2006
JP	2006-314167		11/2006

(56)

References Cited

FOREIGN PATENT DOCUMENTS

JP	2006-350490	12/2006
JP	2008-503125	1/2008
JP	2008-508601	3/2008
JP	2008 146165	6/2008
JP	2008-203973	9/2008
JP	2008 312153	12/2008
JP	2009-169825	7/2009
JP	2009-525538	7/2009
JP	10-503124 A	1/2010
JP	2012 014299	1/2012
KR	2009-0057304	6/2009
KR	2009-0057421	6/2009
WO	WO 00/38042 A1	8/2000
WO	WO 01/29702 A2	4/2001
WO	WO 01/77792 A2	10/2001
WO	WO 02/01338 A1	1/2002
WO	WO 02/08881 A	1/2002
WO	WO 02/13176 A2	2/2002
WO	WO 02/21338 A2	3/2002
WO	WO 03/060622 A2	7/2003
WO	WO 03/081458 A1	10/2003
WO	WO 04/001560 A1	12/2003
WO	WO 2005/029460 A1	3/2005
WO	WO 05/052773 A2	6/2005
WO	WO 06/003590 A2	1/2006
WO	WO 2006/003591 A2	1/2006
WO	WO 2006/020304 A2	2/2006
WO	WO 2006/020305 A2	2/2006
WO	WO 2006/026183 A2	3/2006
WO	WO 2006/045530 A2	5/2006
WO	WO 2006/067711 A2	6/2006
WO	WO 2006/094308 A2	9/2006
WO	WO 2006/128248 A1	12/2006
WO	WO 2007/037806 A1	4/2007
WO	WO 2007/067858 A2	6/2007
WO	WO 2007/079425 A2	7/2007
WO	WO 2007/089766 A2	8/2007
WO	WO 2008/020446 A1	2/2008
WO	WO 2008/030779 A2	3/2008
WO	WO 2008/030879 A2	3/2008
WO	WO 2008/030880 A1	3/2008
WO	WO 2008/085846 A2	7/2008
WO	WO 2008/085848 A1	7/2008
WO	WO 2008/085855 A1	7/2008
WO	WO 2008/085871 A1	7/2008
WO	WO 2008/085877 A1	7/2008
WO	WO 2008/148021 A2	12/2008
WO	WO 2009/018314 A2	2/2009
WO	WO 2009/111189 A1	9/2009
WO	WO 2009/111458 A1	9/2009
WO	WO 2009/111460 A1	9/2009
WO	WO 2009/111469 A1	9/2009

OTHER PUBLICATIONS

Anonymous, "Firegestures: Firefox Extension," Internet Article, Oct. 27, 2009, 2 pages, <http://xuldev.org/firegestures/>.

Anonymous, "Firegestures: Changelog," Internet Article, Oct. 28, 2009, 8 pages, <http://xuldev.org/firegestures/changelog.php>.

Anonymous, "Firegestures Version History," Internet Article, Oct. 28, 2009, 6 pages, <http://addons.mozilla.org/en-US/firefox/addons/version/6366>.

Apple, "Safari Web Content Guide for iPhone," Apple Inc., Feb. 5, 2005, 96 pages.

Chartier, D., "Apple releases iOS 4.3 beta for developers," Macworld.com, Jan. 12, 2011, http://www.macworld.com/article/1157114/ios_4_3.html, 7 pages.

Chen, T., "The Web is Everywhere," IEEE Communications Magazine, Feb. 5, 2008, 1 page.

Flanagan, D., "JavaScript," 5th Edition, O'Reilly Japan, Jan. 31, 2008, pp. 405-437, (No English translation provided).

KennyTM, "UIGestureRecognizer," from iPhone Development Wiki, Oct. 31, 2009, 3 pages, <http://iphonedevwiki.net/index.php?title=UIGestureRecognizer&oldid=319><http://iphonedevwiki.net/index.php?title=UIGestureRecognizer&action=history>.

Masui et al., "Elastic Graphical Interfaces for Precise Data Manipulation," ACM Conference on Human Factors in Computing Systems (CHI '95), Apr. 1995, Conference Companion, ACM press, pp. 143-144.

Pixley, "Document Object Model (DOM) Level 2 Events Specifications Version 1.0," W3C Recommendation, 50 pages, Nov. 13, 2000.

Pogue, D., "Windows Vista for Starters: The Missing Manual," Safari Books Online, Jan. 25, 2007, 18 pages.

Räihä, L., "Delegation: Dynamic Specialization," Proceeding of the conference on TRI-Ada '94, pp. 172-179.

Rogers, M., "It's for You! An iPhone Development Primer for the Busy College Professor," Journal of Computing Sciences in Colleges, vol. 25, No. 1, Oct. 1, 2009, pp. 94-101.

Invitation to Pay Additional Fees dated Jul. 13, 2010, received in International Application No. PCT/US2010/027118, which corresponds to U.S. Appl. No. 12/566,660, 7 pages (Moore).

International Search Report and Written Opinion dated Oct. 5, 2010, received in International Application No. PCT/US2010/027118, which corresponds to U.S. Appl. No. 12/566,660, 19 pages (Moore).

International Preliminary Report on Patentability dated Sep. 20, 2011, received in International Application No. PCT/US2010/027118, which corresponds to U.S. Appl. No. 12/566,660, 10 pages (Moore).

European Search Report dated Dec. 7, 2011, received in European Patent Application No. 11184186.2, which corresponds to U.S. Appl. No. 12/566,660, 6 pages (Moore).

International Search Report and Written Opinion dated May 20, 2011, received in International Application No. PCT/US2011/022516, which corresponds to U.S. Appl. No. 12/789,695, 6 pages (Moore).

International Search Report and Written Opinion dated Dec. 13, 2011, received in International Patent Application No. PCT/US2011/039583, which corresponds to U.S. Appl. No. 12/892,848, 12 pages (Dale).

Search Report dated Jun. 2012, received in Dutch Patent Application No. 2007993, which corresponds to U.S. Appl. No. 13/077,925, 6 pages (Shaffer).

Invitation to Pay Additional Fees dated Mar. 12, 2012, received in International Application No. PCT/US2011/065859, which corresponds to U.S. Appl. No. 13/077,925, 10 pages (Shaffer).

International Search Report and Written Opinion dated Jun. 1, 2012, received in International Application No. PCT/US2011/065859, which corresponds to U.S. Appl. No. 13/077,925, 22 pages (Shaffer).

International Search Report dated Apr. 16, 2009, received in International Application No. PCT/US2009/034772, which corresponds to U.S. Appl. No. 12/042,318, 3 pages (Platzer).

European Search Report dated Apr. 22, 2009, received in European Application No. 09154313.2, which corresponds to U.S. Appl. No. 12/042,318, 6 pages (Platzer).

European Search Report dated Nov. 23, 2011, received in European Application No. 11184167.2, which corresponds to U.S. Appl. No. 12/042,318, 6 pages (Beaver).

European Search Report dated Nov. 24, 2011, received in European Application No. 11184169.8, which corresponds to U.S. Appl. No. 12/042,318, 6 pages (Beaver).

European Search Report dated Nov. 18, 2011, received in European Application No. 11184170.6, which corresponds to U.S. Appl. No. 12/042,318, 6 pages (Beaver).

European Search Report dated Nov. 18, 2011, received in European Application No. 11184172.2, which corresponds to U.S. Appl. No. 12/042,318, 6 pages (Beaver).

European Search Report dated Nov. 30, 2011, received in European Application No. 11184409.8, which corresponds to U.S. Appl. No. 12/042,318, 6 pages (Beaver).

European Search Report dated Jul. 9, 2012, received in European Application No. 12156395.1, which corresponds to U.S. Appl. No. 12/042,318, 8 pages (Beaver).

International Search Report and Written Opinion dated Jul. 3, 2009, received in International Application No. PCT/US2009/035856, which corresponds to U.S. Appl. No. 12/042,067, 15 pages (Williamson).

(56)

References Cited**OTHER PUBLICATIONS**

International Preliminary Report on Patentability dated Sep. 16, 2010, received in International Application No. PCT/US2009/035856, which corresponds to U.S. Appl. No. 12/042,067, 8 pages (Williamson).

International Search Report and Written Opinion dated Nov. 11, 2009, received in International Application No. PCT/US2009/035874, which corresponds to U.S. Appl. No. 12/042,299, 7 pages (Williamson).

International Preliminary Report on Patentability dated Sep. 16, 2010, received in International Application No. PCT/US2009/035874, which corresponds to U.S. Appl. No. 12/042,299, 8 pages (Williamson).

European Search Report dated Jan. 13, 2012, received in European Patent Application No. 11184226.6, which corresponds to U.S. Appl. No. 12/042,299, 7 pages (Williamson).

European Search Report dated Jan. 13, 2012, received in European Patent Application No. 11184224.1, which corresponds to U.S. Appl. No. 12/042,299, 7 pages (Williamson).

International Search Report and Written Opinion dated Jul. 31, 2008, received in International Application No. PCT/US2008/000058, which corresponds to U.S. Appl. No. 11/620,709 (Platzer).

International Preliminary Report on Patentability dated Jul. 7, 2009, received in International Application No. PCT/US2008/000058, which corresponds to U.S. Appl. No. 11/620,709 (Platzer).

International Search Report and Written Opinion dated Apr. 22, 2008, received in International Application No. PCT/US2008/000060, which corresponds to U.S. Appl. No. 11/620,727 (Blumenberg).

International Preliminary Report on Patentability dated Jul. 7, 2009, received in International Application No. PCT/US2008/000060, which corresponds to U.S. Appl. No. 11/620,727 (Blumenberg).

International Search Report and Written Opinion dated May 2, 2008, received in International Application No. PCT/US2008/000069, which corresponds to U.S. Appl. No. 11/620,715 (Platzer).

International Preliminary Report on Patentability dated Jul. 7, 2009, received in International Application No. PCT/US2008/000069, which corresponds to U.S. Appl. No. 11/620,715 (Platzer).

International Search Report and Written Opinion dated Jun. 4, 2008, received in International Application No. PCT/US2008/000089, which corresponds to U.S. Appl. No. 11/620,717 (Platzer).

International Preliminary Report on Patentability dated Jul. 7, 2009, received in International Application No. PCT/US2008/000089, which corresponds to U.S. Appl. No. 11/620,717 (Platzer).

International Search Report and Written Opinion dated Jun. 3, 2008, received in International Application No. PCT/US2008/000103, which corresponds to U.S. Appl. No. 11/620,723 (Platzer).

International Preliminary Report on Patentability dated Jul. 7, 2009, received in International Application No. PCT/US2008/000103, which corresponds to U.S. Appl. No. 11/620,723 (Platzer).

Office Action dated Dec. 9, 2011, received in U.S. Appl. No. 12/566,660, 14 pages (Moore).

Notice of Allowance dated May 24, 2012, received in U.S. Appl. No. 12/566,660, 10 pages (Moore).

Notice of Allowance dated Jul. 26, 2012, received in U.S. Appl. No. 12/566,660, 9 pages (Moore).

Patent Examination Report No. 1 dated Oct. 17, 2012, received in Australian Patent Application No. 2010226120, which corresponds to U.S. Appl. No. 12/566,660, 3 pages (Moore).

Notice of Allowance dated Nov. 2, 2012, received in Canadian Patent Application No. 2756443, which corresponds to U.S. Appl. No. 12/566,660, 1 page (Moore).

Office Action dated Mar. 4, 2013, received in U.S. Appl. No. 12/789,695, 29 pages (Shaffer).

Office Action dated Oct. 22, 2012, received in Chinese Patent Application No. 201110063183.8, which corresponds to U.S. Appl. No. 12/789,695, 8 pages (Shaffer).

Office Action dated Oct. 9, 2012, received in U.S. Appl. No. 12/892,851, 22 pages (Dale).

Office Action dated Oct. 19, 2012, received in Chinese Patent Application No. 201120580018.5, which corresponds to U.S. Appl. No. 13/077,925, 4 pages (Shaffer).

Office Action dated Feb. 16, 2011, received in U.S. Appl. No. 12/042,318, 26 pages (Beaver).

Final Office Action dated Sep. 15, 2011, received in U.S. Appl. No. 12/042,318, 46 pages (Beaver).

Office Action dated Feb. 25, 2011, received in Australian Patent Application No. 2009200493, which corresponds to U.S. Appl. No. 12/042,318, 3 pages (Beaver).

Office Action dated Aug. 9, 2011, received in Australian Patent Application No. 2009200493, which corresponds to U.S. Appl. No. 12/042,318, 2 pages (Beaver).

Office Action dated Feb. 22, 2012, received in Australian Patent Application No. 2011205170, which corresponds to U.S. Appl. No. 12/042,318, 3 pages (Beaver).

Office Action dated Dec. 13, 2011, received in Australian Patent Application No. 2011101154, which corresponds to U.S. Appl. No. 12/042,318, 4 pages (Beaver).

Certificate of Examination dated May 7, 2012, received in Australian Patent No. 2011101154, which corresponds to U.S. Appl. No. 12/042,318, 1 page (Beaver).

Office Action dated Dec. 13, 2011, received in Australian Patent Application No. 2011101157, which corresponds to U.S. Appl. No. 12/042,318, 4 pages (Beaver).

Certificate of Examination dated May 8, 2012, received in Australian Patent No. 2011101157, which corresponds to U.S. Appl. No. 12/042,318, 1 page (Beaver).

Office Action dated Dec. 13, 2011, received in Australian Patent Application No. 2011101156, which corresponds to U.S. Appl. No. 12/042,318, 3 pages (Beaver).

Certificate of Examination dated May 8, 2012, received in Australian Patent No. 2011101156, which corresponds to U.S. Appl. No. 12/042,318, 1 page (Beaver).

Office Action dated Dec. 13, 2011, received in Australian Patent Application No. 2011101155, which corresponds to U.S. Appl. No. 12/042,318, 3 pages (Beaver).

Certificate of Examination dated May 8, 2012, received in Australian Patent No. 2011101155, which corresponds to U.S. Appl. No. 12/042,318, 1 page (Beaver).

Office Action dated Sep. 3, 2012, received in Australian Patent Application No. 2011265335, which corresponds to U.S. Appl. No. 12/042,318, 2 pages (Beaver).

Notice of Acceptance dated Nov. 8, 2012, received in Australian Patent Application No. 2011265335, which corresponds to U.S. Appl. No. 12/042,318, 3 pages (Beaver).

Grant for Invention Patent dated Mar. 22, 2011, received in Chinese Patent Application No. ZL200910118596.4, which corresponds to U.S. Appl. No. 12/042,318, 3 pages (Beaver).

Office Action dated Jan. 21, 2013, received in Chinese Patent Application No. 201110148738.9, which corresponds to U.S. Appl. No. 12/042,318, 17 pages (Beaver).

Office Action dated Mar. 2, 2011, received in European Patent Application No. 11150786.9, which corresponds to U.S. Appl. No. 12/042,318, 5 pages (Beaver).

Decision to Grant dated Jul. 26, 2012, received in European Patent Application No. 11150786.9, which corresponds to U.S. Appl. No. 12/042,318, 1 pages (Beaver).

Certificate of Grant dated Nov. 30, 2012, received in Hong Kong Patent Application No. 11110416.2, which corresponds to U.S. Appl. No. 12/042,318, 1 page (Beaver).

Office Action dated Aug. 26, 2011, received in Japanese Patent Application No. 2009-080377, which corresponds to U.S. Appl. No. 12/042,318, 2 pages (Beaver).

Decision to Grant dated Jul. 27, 2012, received in Japanese Patent Application No. 2009080377, which corresponds to U.S. Appl. No. 12/042,318, 4 pages (Beaver).

Office Action dated Jan. 18, 2011, received in U.S. Appl. No. 12/042,067, 14 pages (Williamson).

Final Office Action dated Jul. 28, 2011, received in U.S. Appl. No. 12/042,067, 18 pages (Williamson).

(56)

References Cited**OTHER PUBLICATIONS**

Office Action dated Oct. 19, 2011, received in Chinese Patent Application No. 200980000014.0, which corresponds to U.S. Appl. No. 12/042,067, 15 pages (Williamson).

Office Action dated Jun. 13, 2012, received in Chinese Patent Application No. 200980000014.0, which corresponds to U.S. Appl. No. 12/042,067, 6 pages (Williamson).

Decision to Grant dated Nov. 27, 2012, received in Chinese Patent Application No. 200980000014.0, which corresponds to U.S. Appl. No. 12/042,067, 1 page (Williamson).

Office Action dated Oct. 19, 2010, received in German Patent Application No. 11 2009 000 001.0, which corresponds to U.S. Appl. No. 12/042,067; 5 pages (Williamson).

Office Action dated Sep. 26, 2012, received in German Patent Application No. 11 2009 000 001.0, which corresponds to U.S. Appl. No. 12/042,067, 5 pages (Williamson).

Office Action dated Oct. 15, 2010, received in European Patent Application No. 09 700 006.1, which corresponds to U.S. Appl. No. 12/042,067 4 pages (Williamson).

Office Action dated Oct. 24, 2011, received in Japanese Patent Application No. 2010-502356, which corresponds to U.S. Appl. No. 12/042,067, 2 pages (Williamson).

Office Action dated Jan. 4, 2011, received in U.S. Appl. No. 12/042,299, 9 pages (Williamson).

Final Office Action dated Jul. 8, 2011, received in U.S. Appl. No. 12/042,299, 13 pages (Williamson).

Office Action dated May 3, 2012, received in U.S. Appl. No. 12/042,299, 14 pages (Williamson).

Notice of Allowance dated Dec. 12, 2012, received in U.S. Appl. No. 12/042,299, 12 pages (Williamson).

Office Action dated Oct. 26, 2011, received in Chinese Patent Application No. 200980000013.6, which corresponds to U.S. Appl. No. 12/042,299, 11 pages (Williamson).

Office Action dated Jun. 6, 2012, received in Chinese Patent Application No. 200980000013.6, which corresponds to U.S. Appl. No. 12/042,299, 7 pages (Williamson).

Office Action dated Dec. 5, 2012, received in Chinese Patent Application No. 200980000013.6, which corresponds to U.S. Appl. No. 12/042,299, 7 pages (Williamson).

Office Action dated Aug. 10, 2010, received in German Patent Application No. 11 2009 000 003.7, which corresponds to U.S. Appl. No. 12/042,299, 3 pages (Williamson).

Office Action dated Sep. 26, 2012, received in German Patent Application No. 11 2009 000 003.7, which corresponds to U.S. Appl. No. 12/042,299, 5 pages (Williamson).

Office Action dated Nov. 26, 2010, received in European Patent Application No. 09 700 007.9, which corresponds to U.S. Appl. No. 12/402,299, 5 pages (Williamson).

Office Action dated Sep. 12, 2012, received in European Patent Application No. 11184226.6 which corresponds to U.S. Appl. No. 12/402,299, 5 pages (Williamson).

Office Action dated Sep. 12, 2012, received in European Patent Application No. 11184224.1, which corresponds to U.S. Appl. No. 12/402,299, 4 pages (Williamson).

Office Action dated Sep. 12, 2012, received in European Patent Application No. 11184223.3, which corresponds to U.S. Appl. No. 12/402,299, 4 pages (Williamson).

Office Action dated Sep. 12, 2012, received in European Patent Application No. 11184222.5, which corresponds to U.S. Appl. No. 12/402,299, 4 pages (Williamson).

Office Action dated Aug. 15, 2011, received in Japanese Patent Application No. 2010-502358, which corresponds to U.S. Appl. No. 12/042,299, 2 pages (Williamson).

Decision to Grant dated Mar. 23, 2012, received in Japanese Patent Application No. 2010-502358, which corresponds to U.S. Appl. No. 12/042,299, 5 pages (Williamson).

Office Action dated Sep. 6, 2013, received in Japanese Patent Application No. 2012088747, which corresponds to U.S. Appl. No. 12/042,299, 4 pages (Williamson).

Office Action dated Jan. 3, 2013, received in U.S. Appl. No. 13/077,931, 24 pages (Shaffer).

Office Action dated Nov. 21, 2012, received in U.S. Appl. No. 13/163,624, 29 pages (Williamson).

Office Action dated Nov. 26, 2012, received in U.S. Appl. No. 13/163,626, 29 pages (Williamson).

Office Action dated Oct. 24, 2013, received in U.S. Appl. No. 13/163,626, 16 pages (Williamson).

Office Action dated Sep. 14, 2011, received in U.S. Appl. No. 12/042,237, 8 pages (Bolsinga).

Notice of Allowance dated Mar. 6, 2012, received in U.S. Appl. No. 12/042,237, 16 pages (Bolsinga).

Office Action dated Jul. 14, 2011, received in Chinese Patent Application No. 200980000015.5, which corresponds to U.S. Appl. No. 12/042,237, 8 pages (Bolsinga).

Office Action dated Feb. 22, 2012, received in Chinese Patent Application No. 200980000015.5, which corresponds to U.S. Appl. No. 12/042,237, 9 pages (Bolsinga).

Office Action dated Sep. 11, 2012, received in Chinese patent Application No. 200980000015.5, which corresponds to U.S. Appl. No. 12/042,237, 9 pages (Bolsinga).

Office Action dated Sep. 26, 2012, received in German Patent Application No. 11 2009 000 002.9, which corresponds to U.S. Appl. No. 12/042,237, 5 pages (Bolsinga).

Office Action dated Jan. 16, 2012, received in Japanese Patent Application No. 2010-502357, which corresponds to U.S. Appl. No. 12/042,237, 5 pages (Bolsinga).

Office Action dated Sep. 2, 2013, received in Japanese Patent Application No. 2010 502357, which corresponds to U.S. Appl. No. 12/042,237, 2 pages (Bolsinga).

Notice of Allowance dated May 23, 2012, received U.S. Appl. No. 13/221,830, 8 pages (Moore).

Notice of Allowance dated Dec. 3, 2012, received in U.S. Appl. No. 13/221,830, 17 pages (Moore).

Office Action dated Nov. 11, 2010, received in Chinese Patent Application No. 200880001827.7, which corresponds to U.S. Appl. No. 11/620,717, 6 pages (Platzer).

Office Action dated Jan. 29, 2012, received in Chinese Patent Application No. 2008800018227, which corresponds to U.S. Appl. No. 11/620,717, 5 pages (Platzer).

Office Action dated Jul. 2, 2012, received in Chinese Patent Application No. 200880001827.7, which corresponds to U.S. Appl. No. 11/620,717, 7 pages (Platzer).

Office Action dated Nov. 26, 2012, received in European Patent Application No. 08 712 964.9, which corresponds to U.S. Appl. No. 11/620,717, 6 pages (Platzer).

Office Action dated Jun. 20, 2012, received in U.S. Appl. No. 12/869,182, 18 pages (Platzer).

Notice of Allowance dated Dec. 12, 2012, received in U.S. Appl. No. 12/869,182, 8 pages (Platzer).

Final Office Action dated Mar. 12, 2012, received in U.S. Appl. No. 11/620,727, 21 pages (Blumenberg).

Office Action dated Aug. 15, 2012, received in U.S. Appl. No. 11/620,727, 19 pages (Blumenberg).

Office Action dated Nov. 5, 2012, received in U.S. Appl. No. 13/221,836, 31 pages (Blumenberg).

Office Action dated Jul. 24, 2012, received in U.S. Appl. No. 13/221,837, 25 pages (Blumenberg).

Final Office Action dated Feb. 14, 2013, received in U.S. Appl. No. 13/221,837, 17 (Blumenberg).

Final Office Action dated Jul. 9, 2012, received in U.S. Appl. No. 13/251,121, 30 pages (Blumenberg).

Final Office Action dated Jun. 20, 2012, received in U.S. Appl. No. 13/251,146, 28 pages (Blumenberg).

Final Office Action dated Oct. 2, 2013, received in U.S. Appl. No. 13/251,146, 24 pages (Blumenberg).

Final Office Action dated Jul. 5, 2012, received in U.S. Appl. No. 13/251,150, 36 pages (Blumenberg).

Final Office Action dated Jun. 20, 2012, received in U.S. Appl. No. 13/251,152, 24 pages (Blumenberg).

Final Office Action dated Oct. 18, 2013, received in U.S. Appl. No. 13/251,152, 38 pages (Blumenberg).

(56)

References Cited**OTHER PUBLICATIONS**

- Office Action dated Aug. 29, 2012, received in U.S. Appl. No. 11/620,715, 20 pages (Platzer).
- Final Office Action dated Mar. 1, 2013, received in U.S. Appl. No. 11/620,715, 25 pages (Platzer).
- Office Action dated Jun. 6, 2012, received in Chinese Patent Application No. 200880001855.9, which corresponds to U.S. Appl. No. 11/620,715, (Platzer).
- Office Action dated Nov. 5, 2012, received in Chinese Patent Application No. 200880001855.9, which corresponds to U.S. Appl. No. 11/620,715, 22 pages (Platzer).
- Office Action dated Oct. 30, 2012, received in European Patent Application No. 08 712 946.6, which corresponds to U.S. Appl. No. 11/620,715, 20 pages (Platzer).
- Office Action dated Jun. 18, 2012, received in U.S. Appl. No. 13/464,800, 10 pages (Bolsinga).
- Notice of Allowance dated Nov. 13, 2012, received in U.S. Appl. No. 13/464,800, 20 pages (Bolsinga).
- Notice of Allowance dated Dec. 19, 2012, received in U.S. Appl. No. 13/464,800, 11 pages (Bolsinga).
- Office Action dated Mar. 5, 2012, received in U.S. Appl. No. 13/670,378, 40 pages (Beaver).
- Office Action dated Apr. 1, 2009, received in U.S. Appl. No. 11/620,709 (Platzer).
- Final Office Action dated Nov. 13, 2009, received in U.S. Appl. No. 11/620,709 (Platzer).
- Office Action dated Jun. 9, 2010, received in U.S. Appl. No. 11/620,709, 8 pages (Platzer).
- Office Action dated Jul. 8, 2009, received in U.S. Appl. No. 11/620,717 (Platzer).
- Office Action dated Dec. 29, 2009, received in U.S. Appl. No. 11/620,717 (Platzer).
- Notice of Allowance dated Jul. 20, 2012, received in U.S. Appl. No. 11/620,717, 31 pages (Platzer).
- Notice of Allowance dated Oct. 22, 2013, received in U.S. Appl. No. 13/867,950, 12 pages (Platzer).
- Office Action dated Apr. 1, 2009, received in U.S. Appl. No. 11/620,723 (Platzer).
- Final Office Action dated Nov. 17, 2009, received in U.S. Appl. No. 11/620,723 (Platzer).
- Office Action dated Jun. 8, 2010, received in U.S. Appl. No. 11/620,723, 8 pages (Platzer).
- Brown et al., "Distributed active objects," Computer Networks and ISDN Systems, North Holland Publishing, Amsterdam, NL, vol. 28, No. 11, May 1996, pp. 1037-1052.
- W3C, "Document Object Model (DOM) Level 2 Events Specification, Version 1," W3C Recommendation, Nov. 13, 2000, 48 pages.
- Wikibooks, "Java Programming/Applets/Event Listeners," May 1, 2007, http://en.wikibooks.org/windex.php?title=Java_Programming/Applets/Event_Listeners&oldid=849558, 6 pages.
- International Preliminary Report on Patentability dated Dec. 27, 2012, received in International Patent Application No. PCT/US2011/039583, which corresponds to U.S. Appl. No. 12/892,848, 10 pages (Dale).
- European Search Report dated Feb. 28, 2013, received in European Patent Application No. 12188748.3, which corresponds to U.S. Appl. No. 12/042,067, 8 pages (Williamson).
- Office Action dated Mar. 14, 2013, received in U.S. Appl. No. 12/042,067, 27 pages (Williamson).
- Summons to oral proceedings dated Mar. 7, 2013, received in European Patent Application No. 09700006.1, which corresponds to U.S. Appl. No. 12/042,067, 5 pages (Williamson).
- Office Action dated Mar. 22, 2013, received in U.S. Appl. No. 13/163,624, 11 pages (Williamson).
- Office Action dated Mar. 20, 2013, received in U.S. Appl. No. 13/163,626, 10 pages (Williamson).
- Summons to oral proceedings dated Mar. 27, 2013, received in European Patent Application No. 09700008.7, which corresponds to U.S. Appl. No. 12/042,237, 4 pages (Bolsinga).
- Final Office Action dated Mar. 7, 2013, received in U.S. Appl. No. 11/620,727, 23 pages (Blumenberg).
- Office Action dated Apr. 11, 2013, received in U.S. Appl. No. 13/251,146, 35 pages (Blumenberg).
- Office Action dated Mar. 7, 2013, received in Chinese Patent Application No. 200880001855.9, which corresponds to U.S. Appl. No. 11/620,715, 21 pages (Platzer).
- Buxton, W. et al., "Multi-Touch Systems that I Have Known and Loved," Jan. 12, 2007, 14 pages, <http://www.billbuxton.com/multitouchOverview.html>.
- Han, J., "Jeff Han demos his breakthrough touchscreen," TED ideas worth spreading, Feb. 25, 2006, http://www.ted.com/talks/jeff_han_demos_his_breakthrough_touchscreen.html.
- Jazzmutant, "Lemur v1.3 Documentation Addendum," Mar. 22, 2005, http://www.jazzmutant.com/support_download.php, 3 pages.
- Jazzmutant, "Lemur v1.3 Examples package; CursorModes.xml," Jan. 31, 2006, http://www.jazzmutant.com/support_download.php, 4 pages.
- Jazzmutant, "Lemur v1.3 Examples package; LightStepSeq.xml," Jan. 31, 2006, http://www.jazzmutant.com/support_download.php, 5 pages.
- Jazzmutant Sas et al., "The Lemur Owner's Manual," Oct. 31, 2005, http://www.jazzmutant.com/support_download.php, 108 pages.
- Jazzmutant, "Support," Apr. 21, 2006, http://web.archive.org/web/20060421144624/http://www.jazzmutant.com/support_download.php, 2 pages.
- Justice Floyd, "UK Royal Court of Justice: [2012] EWHC 1789 (Pat)-Extracts," Jul. 4, 2013, <http://www.judiciary.gov.uk/Resources/JCO/Documents/Judgments/hc-v-apple-judgment.pdf>, 26 pages.
- Microsoft, "Microsoft Windows Software Development Kit-Update for Windows Vista," Mar. 22, 2007, <http://www.microsoft.com/en-us/download/details.aspx?displaylang=en&id=23719>, 26 pages.
- Microsoft, "Window Styles—Microsoft Windows SDK—Screenshot," Mar. 22, 2007, 2 pages.
- Petzold, C., "Programming Microsoft Windows with C#," Jan. 18, 2002, 5 pages.
- YouTube, "A Lemurized Formula," 4:07 minute video uploaded to YouTube by Sph9000 on Dec. 12, 2007, <http://youtube.com/watch?v=sHAMyQak-LM>, 1 page.
- Office Action dated Jun. 3, 2013, received in Japanese Patent Application No. 2012500844, which corresponds to U.S. Appl. No. 12/566,660, 5 pages (Moore).
- Notice of Allowance dated May 29, 2013, received in Korean Patent Application No. 10-2011-7024288, which corresponds to U.S. Appl. No. 12/566,660, 2 pages (Moore).
- Notice of Allowance dated May 15, 2013, received in U.S. Appl. No. 12/892,848, 37 pages (Dale).
- Notice of Allowance, dated Jun. 27, 2013, received in U.S. Appl. No. 13/077,925, 29 pages (Shaffer).
- Office Action dated Apr. 22, 2013, received in Chinese Patent Application No. 201120580018.5, which corresponds to U.S. Appl. No. 13/077,925, 4 pages (Shaffer).
- Summons to oral proceedings dated May 15, 2013, received in European Patent Application No. 09154313.2, which corresponds to U.S. Appl. No. 12/042,318, 30 pages (Beaver).
- Notice of Allowance dated Jun. 13, 2013, received in U.S. Appl. No. 13/077,927, 29 pages (Shaffer).
- Final Office Action dated May 16, 2013, received in U.S. Appl. No. 13/221,836, 27 pages (Blumenberg).
- Office Action dated Jun. 7, 2013, received in U.S. Appl. No. 13/215,150, 43 pages (Blumenberg).
- Office Action dated Apr. 23, 2013, received in U.S. Appl. No. 13/251,152, 29 pages (Blumenberg).
- Office Action dated Jun. 26, 2013, received in U.S. Appl. No. 13/867,950, 21 pages (Platzer).
- International Preliminary Report on Patentability dated Jul. 4, 2013, received in International Patent Application No. PCT/US2011/065859, which corresponds to U.S. Appl. No. 13/077,925, 18 pages (Shaffer).
- Office Action dated Jun. 19, 2013, received in European Patent Application No. 10 712 825.8, which corresponds to U.S. Appl. No. 12/566,660, 5 pages (Moore).

(56)

References Cited**OTHER PUBLICATIONS**

Office Action dated Jun. 28, 2013, received in Australian Patent Application No. 2011209720, which corresponds to U.S. Appl. No. 12/789,695, 4 pages (Shaffer).

Office Action dated Aug. 26, 2013, received in Chinese Patent Application No. 201110063183.8, which corresponds to U.S. Appl. No. 12/789,695, (Shaffer).

Office Action dated Jul. 26, 2013, received in European Patent Application No. 11 152 015.1, which corresponds to U.S. Appl. No. 12/789,695, 6 pages (Shaffer).

Office Action dated Aug. 14, 2013, received in Australian Patent Application No. 2011268047, which corresponds to U.S. Appl. No. 12/892,848, 2 pages (Dale).

Office Action dated Aug. 22, 2013, received in European Patent Application No. 11 727 371.4, which corresponds to U.S. Appl. No. 12/892,848, 6 pages (Dale).

Final Office Action dated Jul. 19, 2013, received in U.S. Appl. No. 12/892,851, 21 pages (Dale).

Notice of Grant dated Jul. 26, 2013, received in Chinese Patent Application No. 201120580018.5, which corresponds to U.S. Appl. No. 13/077,925, 7 pages (Shaffer).

Notice of Acceptance dated Jul. 3, 2013, received in Australian Patent Application No. 2011205170, which corresponds to U.S. Appl. No. 12/042,318, 2 pages (Beaver).

Office Action dated Aug. 5, 2013, received in Chinese Patent Application No. 201110148738.9, which corresponds to U.S. Appl. No. 12/042,318, 6 pages (Beaver).

Notice of Allowance dated Sep. 27, 2013, received in U.S. Appl. No. 12/042,067, 16 pages (Williamson).

Office Action dated Jul. 3, 2013, received in Chinese Patent Application No. 20098000013.6, which corresponds to U.S. Appl. No. 12/042,299, 6 pages (Williamson).

Final Office Action dated Sep. 9, 2013, received in U.S. Appl. No. 13/077,931, 30 pages (Shaffer).

Final Office Action dated Sep. 23, 2013, received in U.S. Appl. No. 13/251,121, 28 pages (Blumenberg).

Notice of Allowance dated Jul. 24, 2013, received in U.S. Appl. No. 13/670,378, 20 days (Beaver).

Flanagan, D., "JavaScript," 5th Edition, O'Reilly Japan, Jan. 31, 2008, pp. 405-437, (English translation provided).

Office Action dated Oct. 31, 2013, received in Chinese Patent Application No. 201080020598.0, which corresponds to U.S. Appl. No. 12/566,660, 2 pages (Moore).

Office Action dated Nov. 18, 2013, received in Japanese Patent Application No. 2013 515382, which corresponds to U.S. Appl. No. 12/892,848, 37 pages (Dale).

Office Action dated Dec. 5, 2013, received in Korean Patent Application No. 2012 7029618, which corresponds to U.S. Appl. No. 12/892,848, 4 pages (Dale).

Notice of Allowance dated Dec. 16, 2013, received in U.S. Appl. No. 12/042,318, 51 pages (Beaver).

Notice of Allowance dated Dec. 6, 2013, received in U.S. Appl. No. 12/042,067, 12 pages (Williamson).

Final Office Action dated Dec. 11, 2013, received in U.S. Appl. No. 13/251,150, 47 pages (Blumenberg).

Notice of Allowance dated Jan. 15, 2014, received in U.S. Appl. No. 13/620,390, 28 pages (Moore).

Office Action dated Oct. 24, 2013, received in U.S. Appl. No. 12/789,695, 24 pages (Shaffer).

Decision to Grant dated Nov. 1, 2013, received in Japanese Patent Application No. 2012 186775, which corresponds to U.S. Appl. No. 12/042,318, 3 pages (Beaver).

Notification of Grant dated Nov. 6, 2013, received in Chinese Patent Application No. 20098000013.6, which corresponds to U.S. Appl. No. 12/042,299, 2 pages (Williamson).

Summons to attend oral proceedings dated Oct. 30, 2013, received in European Patent Application No. 09700007.9, which corresponds to U.S. Appl. No. 12/042,299, 5 pages (Williamson).

Summons to attend oral proceedings dated Oct. 30, 2013, received in European Patent Application No. 11184226.6, which corresponds to U.S. Appl. No. 12/042,299, 5 pages (Williamson).

Summons to attend oral proceedings dated Oct. 30, 2013, received in European Patent Application No. 11184224.1, which corresponds to U.S. Appl. No. 12/042,299, 5 pages (Williamson).

Summons to attend oral proceedings dated Oct. 30, 2013, received in European Patent Application No. 11184223.3, which corresponds to U.S. Appl. No. 12/042,299, 5 pages (Williamson).

Summons to attend oral proceedings dated Oct. 30, 2013, received in European Patent Application No. 11184222.5, which corresponds to U.S. Appl. No. 12/042,299, 5 pages (Williamson).

Office Action dated Sep. 24, 2013, received in Japanese Patent Application No. 2012 218235, which corresponds to U.S. Appl. No. 12/042,237, 6 pages (Bolsinga).

Office Action dated Oct. 30, 2013, received in U.S. Appl. No. 13/221,836, 31 pages (Blumenberg).

Ex parte reexamination communication transmittal form, dated Jul. 26, 2013, received in Reexamination No. 90/012,332, 61 pages.

Extended European Search Report, dated Jan. 13, 2012, received in European Patent Application No. 11184222.5, which corresponds with U.S. Appl. No. 12/042,299, 4 pages.

International Search Report and Written Opinion, dated Jul. 3, 2009, received in International Patent Application No. PCT/US2009/035858, which corresponds with U.S. Appl. No. 12/042,237, 10 pages.

International Preliminary Report on Patentability, dated Sep. 7, 2010, received in International Patent Application No. PCT/US2009/035858, which corresponds with U.S. Appl. No. 12/042,237, 6 pages.

International Search Report, dated Dec. 4, 2014, received in International Patent Application No. PCT/US2014/040406, which corresponds with U.S. Appl. No. 14/290,931, 4 pages.

International Preliminary Report on Patentability, dated Dec. 15, 2015, received in International Patent Application No. PCT/US2014/040406, which corresponds with U.S. Appl. No. 14/290,931, 6 pages.

Apple Inc. v. HTC Corporation, Brief Details of Claim, in the High Court of Justice, Chancery Division, Patents Court, Sep. 12, 2011, 2 pages.

Apple Inc. v. HTC Corporation, Particulars of Infringement, In the High Court of Justice, Chancery Division, Patents Court, Sep. 12, 2011, 5 pages.

Apple Inc. v. HTC Corporation, Particulars of Claim, In the High Court of Justice, Chancery Division, Patents Court, Sep. 12, 2011, 4 pages.

Apple Inc. v. HTC Corporation Intervention of the Assumed Infringer according to Art. 105 EPC, Dec. 12, 2011, 24 pages.

Apple Inc. vs. Samsung Electronics Co. Ltd. et al., Judgment, District Court of the Hague, Aug. 24, 2011, 65 pages.

Apple Inc. vs. Samsung Electronics Co. Ltd., et al., Samsung's Motion To Supplement Invalidity, U.S. District Court, Jan. 27, 2012, 47 pages.

Ballard, "Microsoft Makes Research Technologies Available for Licensing," http://www.theserverside.com/news/thread.tss?thread_id=33761, May 5, 2005, 3 pages.

Bederson, "Photo Mesa 3.1.2, Screen Shots," May 24, 2006, 5 pages.

Benko et al., "Precise Selection Techniques for Multi-Touch Screens," Department of Computer Science, Columbia University, NY, Jan. 16, 2006, 10 pages.

Davis, "Flash to the Core," <http://www.amazon.com/Flash-Core-Joshua-David/dp/0735712881>:Amazon.com, Jul. 24, 2002, 5 pages.

Dewid, "Scroll Control Box," IBM Technical Disclosure Bulletin, vol. 38, 04, Apr. 1993, 6 pages.

Dietz et al., "DiamondTouch: A Multi-User Touch Technology," Mitsubishi Electric Research Laboratories, Cambridge, Massachusetts, Oct. 2003, 11 pages.

Dodge et al., "Microsoft Office Excel 2003 Office Manual," Microsoft Press, vol. 1, Jul. 12, 2004, 5 pages.

Esenther et al., "Fluid DTMouse: Better Mouse Support for Touch-Based Interactions," Mitsubishi Electric Research Laboratories, Cambridge, Massachusetts, May 2006, 5 pages.

Feng et al., "Wireless Java Programming with Java 2 Micro Edition," ASCII Corporation, Kenichi Suzuki, Japan, May 11, 2002, 90 pages.

(56)

References Cited

OTHER PUBLICATIONS

- Forlines et al., "DTLens: Multi-user Tabletop Spatial Data Exploration," Mitsubishi Electric Research Laboratories, Cambridge, Massachusetts, Oct. 2005, 5 pages.
- Forlines et al., "Glimpse: A Novel Input Model for Multi-Level Devices," Mitsubishi Electric Research Laboratory, Cambridge, Massachusetts, Dec. 2005, 5 pages.
- Holzner, "Built-in JavaScript Objects," JavaScript Complete, McGraw/Hill, New York, Jun. 1998, 9 pages.
- International Search Report and Written Opinion, dated May 31, 2005, received in International Patent Application No. PCT/US2005/000089, 7 pages.
- International Preliminary Report on Patentability, dated Jun. 18, 2005, received in International Patent Application No. PCT/US2005/000089, 5 pages.
- Karlson et al., ApplLens and LaunchTile: Two Designs for One-handed Thumb Use on Small Devices, PowerPoint presentation, Computer Science Department, University of Maryland, College Park, MD, Apr. 2-7, 2005, 17 pages.
- Karlson et al., "ApplLens and LaunchTile: Two Designs for One-handed Thumb Use on Small Devices," paper, Computer Science Department, University of Maryland, College Park, MD, Apr. 2-7, 2005, 10 pages.
- Kim et al., "HCI (Human Computer Interaction) Using Multi-touch Tabletop Display," Department of Computer Engineering, Chonnam National University, Gwangju Korea, Aug. 24, 2007, 4 pages.
- Lin et al., "Embedded GUI Based on Linux OS and Design Improvement Thereof," May 13, 2004, 6 pages.
- Maemo.org, "Coding Style and Programming Guidelines," http://maemo.org/development/documentation/manuals/3-x/maemo_coding_style_and_programming_guides, Nov. 28, 2007, 14 pages.
- Matsuda et al., "Phosphorylcholine-endcapped oligomer and block co-oligomer and surface biological reactivity," Biomaterials, Jun. 24, 2003, 11 pages.
- Mertz et al., "The Influence of Design Techniques on User Interfaces: the DigiStrips Experiment for Air Traffic Control," HCI-aero 2000, Toulouse, France, Sep. 2000, 6 pages.
- "Microsoft Word 2003 Screen Shots," Microsoft 2003, 2 pages.
- Miller, "Archive—Java Technology Products Download, PersonalJava Application Environment," <http://java.sun.com/products/personaljava/touchable/>, Apr. 13, 2006, 12 pages.
- Millhollon, "Microsoft Office Word 2003 Inside Out," Microsoft Press, Redmond, Washington, Oct. 2, 2003, 7 pages.
- Nokia, "Hildon User Interface Style Guide Summary," Version 1.1, Apr. 12, 2006, 15 pages.
- Notice of Appeal in Expedited Appeal in Summary Proceedings, Sep. 11, 2011, 51 pages.
- Office Action, dated Jul. 21, 2010, received in U.S. Appl. No. 11/620,710, 28 pages.
- Office Action, dated Jun. 23, 2009, received in U.S. Appl. No. 11/620,720, 17 pages.
- Office Action, dated Nov. 18, 2009, received in U.S. Appl. No. 11/620,720, 17 pages.
- Office Action, dated Dec. 23, 2008, received in U.S. Appl. No. 11/620,720, 18 pages.
- Olsen, "Building Interactive Systems: Principles for Human-Computer Interaction," Jan. 7, 2009, 6 pages.
- Olsen, "Developing User Interfaces," Morgan Kaufmann Publishers, San Francisco, California, 1998, Chapter 4, 40 pages.
- Plaisant et al., "Touchscreen Toggle Design," Human-Computer Interaction Laboratory, University of Maryland, College Park, MD, May 3-7, 1992, 2 pages.
- Pleading notes Mr B.J. Berghuis van Woortman, Aug. 10-11, 2010, 16 pages.
- Pleading notes Mr Kleemans, Mr Blomme and Mr Van Oorschot, Aug. 10, 2011, 35 pages.
- Powell Gilbert, *HTC vs. Apple*, letter referencing complaint, Jul. 29, 2011, 22 pages.
- Powell Gilbert, *HTC vs Apple Inc.*, letter referencing complaint, Apr. 5, 2012, 12 pages.
- Quinn Emanuel, response to Appeal Proceedings for European Patent Application No. 09154313.2 (EP 2 098 948 B1), which corresponds with U.S. Appl. No. 12/042,318, Dec. 8, 2014, 34 pages.
- Quinn Emanuel on behalf of Motorola, Statement letter re Notice of the Opposition Division, Dec. 3, 2013, 13 pages.
- Quinn Emanuel on behalf of Motorola, Statement letter re briefs, Jan. 21, 2014, 9 pages.
- Quinn Emanuel, Translation Letter to the EPO, dated Apr. 11, 2012, received in European Patent Application No. 08713567.9, 53 pages.
- Quinn Emanuel, *Apple Inc. vs. Samsung Electronics Co. Ltd., et al.*, Samsung's Patent Local Rule 3-3 and 3-4 Disclosures, U.S. District Court, Oct. 7, 2011, 287 pages.
- Ramachandran et al., "An Architecture for Ink Annotations on Web Documents," Proceedings of the 7th International Conference on Document Analysis and Recognition, Aug. 3-6, 2003, 5 pages.
- Rappin et al., "wxPython in Action," Manning Publications, http://up07.net/t2az7xty4dpz/sharebookpro.com_350770414.rar, Mar. 2006, 40 pages.
- Rowan, "Breakthrough Internet Device, Eureka Man," available online at <https://web.archive.org/web/20070709083626/http://leurekaman.com/towards-multi-touch-in-the-browser>, Jan. 31, 2007, 2 pages.
- Rubine, "The Automatic Recognition of Gestures," submitted in partial fulfillment of the requirements for the degree of Doctor of Philosophy in Computer Science at Carnegie Mellon University, Dec. 1991, 285 pages.
- Salmoni, "The Zooming User Interface," *Advogato*, Aug. 16, 2004, 14 pages.
- Samsung, Statement of Defense also Counterclaim (Smartphones), Judge in Interlocutory Proceedings of the Court in The Hague, Jul. 20, 2011, 48 pages.
- Samsung, Statement of Defense also Counterclaim (Tablets), Judge in Interlocutory Proceedings of the Court in The Hague, Jul. 20, 2011, 44 pages.
- Sells, Windows Forms Programming in C#, Microsoft.net Development Series, Mar. 1, 2004, 9 pages.
- Shen et al., "Informing the Design of Direct-Touch Tabletops," Mitsubishi Electric Research Labs, Oct. 2006, 11 pages.
- Tidwell, "Magnetism, Designing Interfaces: Patterns for Effective Interaction Design," O'Reilly Media, Inc., Nov. 21, 2005, 2 pages.
- Touch, "A Glance at Touch," Technology Handbook, <http://www.carrolltouch.com>, Jun. 7, 1998, 37 pages.
- Wagner & Geyer, Remarks submitted for the Opposition Division, Aug. 10, 2012, 73 pages.
- Webster's Dictionary, Definition of the word "Contemporaneous", Jan. 21, 2014, 2 pages.
- Westerman, "Hand Tracking Finger Identification and Chordic Manipulation on a Multi-touch Surface," a dissertation submitted to the Faculty of the University of Delaware in partial fulfillment of the requirements for the degree of Doctor of Philosophy in Electrical Engineering, Mar. 20, 1999, 363 pages.
- Withers Rogers, Preliminary Reponse to Opponent O1's written submissions, Dec. 3, 2013, 11 pages.
- Withers & Rogers LLP, *Apple vs. Samsung*, Proprietor's Response to Communication under Rule 79(1) EPC, dated Mar. 8, 2012, 8 pages.
- Withers & Rogers, Apple's Response to Notice of Intervention from Motorola, Jun. 21, 2012, 3 pages.
- Withers & Rogers, Apple's Response to Addendum from Samsung, Jun. 21, 2012, 3 pages.
- Withers Rogers, Comments on Sections 3.1 and 3.4 of the Withdrawn Appeal, Oct. 14, 2014, 3 pages.
- Withers Rogers, Grounds of Appeal in support of the Notice of Appeal, Aug. 4, 2014, 24 pages.
- Withers Rogers, Revised Second Auxiliary Request, Jan. 30, 2014, 8 pages.
- Zimmermann & Partner, Response to letter dated Jan. 3, 2014, 10 pages.
- Zimmermann & Partner, Response to Summons letter, Nov. 7, 2013, 33 pages.
- Zimmerman & Partner, *Samsung Electronics GmbH/Apple Inc. vs EP 2 126 678 B1 (08713567.9) Opposition*, Jan. 30, 2012, 27 pages.

(56)

References Cited**OTHER PUBLICATIONS**

Examiner's Amendment, dated Oct. 29, 2008, received in U.S. Appl. No. 11/956,969, 6 pages.

Notice of Allowance, dated Oct. 29, 2008, received in U.S. Appl. No. 11/956,969, 6 pages.

Office Action, dated Feb. 19, 2009, received in Australian Patent Application No. 2008201540, which corresponds with U.S. Appl. No. 11/956,969, 2 pages.

Office Action, dated Jul. 15, 2009, received in Australian Patent Application No. 2008201540, which corresponds with U.S. Appl. No. 11/956,969, 2 pages.

Office Action, dated Jul. 1, 2008, received in Australian Patent Application No. 2008100283, which corresponds with U.S. Appl. No. 11/956,969, 2 pages.

Office Action, dated Feb. 11, 2009, received in Australian Patent Application No. 2009200366, which corresponds with U.S. Appl. No. 11/956,969, 2 pages.

Notice of Acceptance, dated Nov. 24, 2011, received in Australian Patent Application No. 2009208099, which corresponds with U.S. Appl. No. 11/956,969, 3 pages.

Office Action, dated Apr. 8, 2010, received in Australian Patent Application No. 2009208103, which corresponds with U.S. Appl. No. 11/956,969, 2 pages.

Notice of Acceptance, dated Apr. 14, 2011, received in Australian Patent Application No. 2009208103, which corresponds with U.S. Appl. No. 11/956,969, 3 pages.

Notice of Acceptance, dated Nov. 9, 2011, received in Australian Patent Application No. 2011201639, which corresponds with U.S. Appl. No. 11/956,969, 3 pages.

Letters Patent, dated Mar. 2, 2012, received in Australian Patent Application No. 2012100050, which corresponds with U.S. Appl. No. 11/956,969, 3 pages.

Office Action, dated Sep. 9, 2013, received in Australian Patent Application No. 2012200689, which corresponds with U.S. Appl. No. 11/956,969, 3 pages.

Office Action, dated Dec. 1, 2009, received in Canadian Patent Application No. 2,658,177, which corresponds with U.S. Appl. No. 11/956,969, 2 pages.

Office Action, dated Jun. 22, 2011, received in Canadian Patent Application No. 2,658,177, which corresponds with U.S. Appl. No. 11/956,969, 2 pages.

Office Action, dated Nov. 4, 2013, received in Canadian Patent Application No. 2,759,090, which corresponds with U.S. Appl. No. 11/956,969, 3 pages.

Notice of Allowance, dated Jan. 30, 2012, received in Canadian Patent Application No. 2,658,177, which corresponds with U.S. Appl. No. 11/956,969, 1 page.

Office Action, dated Nov. 7, 2013, received in Canadian Patent Application No. 2,759,091, which corresponds with U.S. Appl. No. 11/956,969, 4 pages.

Office Action, dated Nov. 23, 2010, received in Chinese Patent Application No. 200880000019.9, which corresponds with U.S. Appl. No. 11/956,969, 13 pages.

Office Action, dated Jan. 5, 2012, received in Chinese Patent Application No. 200880000019.9, which corresponds with U.S. Appl. No. 11/956,969, 14 pages.

Office Action, dated Sep. 20, 2012, received in Chinese Patent Application No. 200880000019.9, which corresponds with U.S. Appl. No. 11/956,969, 22 pages.

Office Action, dated Feb. 18, 2013, received in Chinese Patent Application No. 200880000019.9, which corresponds with U.S. Appl. No. 11/956,969, 12 pages.

Office Action, dated Jul. 23, 2013, received in Chinese Patent Application No. 200880000019.9, which corresponds with U.S. Appl. No. 11/956,969, 4 pages.

Office Action, dated Oct. 29, 2010, received in German Patent Application No. 112008000144.8, which corresponds with U.S. Appl. No. 11/956,969, 4 pages.

Office Action, dated Dec. 29, 2009, received in European Patent Application No. 08713567.9, which corresponds with U.S. Appl. No. 11/956,969, 5 pages.

Decision to Grant, dated Oct. 7, 2011, received in European Patent Application No. 08713567.9, which corresponds with U.S. Appl. No. 11/956,969, 1 page.

Patent Certificate, dated Jun. 21, 2012, received in European Patent Application No. 2126678 (08713567.9), which corresponds with U.S. Appl. No. 11/956,969, 2 pages.

Certificate of Grant, dated Feb. 3, 2012, received in Hong Kong Patent Application No. 10103983.1, which corresponds with U.S. Appl. No. 11/956,969, 2 pages.

Office Action, dated Nov. 19, 2010, received in Japanese Patent Application No. 2009-544996, which corresponds with U.S. Appl. No. 11/956,969, 6 pages.

Letters Patent, dated Jun. 1, 2011, received in Japanese Application No. 2009544996, which corresponds with U.S. Appl. No. 11/956,969, 1 page.

Notice of Allowance, dated Oct. 29, 2012, received in Japanese Patent Application No. 2010-157302, which corresponds with U.S. Appl. No. 11/956,969, 4 pages.

Office Action, dated Oct. 15, 2012, received in Japanese Patent Application No. 2010-157303, which corresponds with U.S. Appl. No. 11/956,969, 4 pages.

Notice of Allowance, dated Apr. 22, 2013, received in Japanese Patent Application No. 2010-157303, which corresponds with U.S. Appl. No. 11/956,969, 4 pages.

Office Action, dated Aug. 27, 2009, received in Korean Patent Application No. 102009-7003574, which corresponds with U.S. Appl. No. 11/956,969, 1 page.

Letters Patent, dated May 15, 2013, received Korean Patent Application No. 102009-7007114, which corresponds with U.S. Appl. No. 11/956,969, 2 pages.

Office Action, dated Jun. 25, 2013, received in Korean Patent Application No. 20137000337, which corresponds with U.S. Appl. No. 11/956,969, 3 pages.

Summons to oral proceedings, dated Oct. 28, 2011, received in European Patent Application No. 08705751.9, which corresponds with U.S. Appl. No. 11/968,059, 9 pages.

Office Action, dated Oct. 11, 2011, received in U.S. Appl. No. 12/270,805, 27 pages.

Notice of Allowance, dated May 17, 2012, received in U.S. Appl. No. 12/270,805, 14 pages.

Office Action, dated Oct. 11, 2011, received in U.S. Appl. No. 12/270,807, 26 pages.

Notice of Allowance, dated May 11, 2012, received in U.S. Appl. No. 12/270,807, 12 pages.

Office Action, dated Oct. 12, 2011, received in U.S. Appl. No. 12/270,810, 12 pages.

Notice of Allowance, dated Jul. 11, 2012, received in U.S. Appl. No. 12/270,810, 17 pages.

Office Action, dated Oct. 13, 2011, received in U.S. Appl. No. 12/270,812, 12 pages.

Office Action, dated May 17, 2012, received in U.S. Appl. No. 12/270,812, 12 pages.

Notice of Allowance, dated Sep. 19, 2012, received in U.S. Appl. No. 12/270,812, 22 pages.

Office Action, dated Oct. 11, 2011, received in U.S. Appl. No. 12/270,815, 12 pages.

Office Action, dated May 17, 2012, received in U.S. Appl. No. 12/270,815, 13 pages.

Final Office Action, dated Feb. 14, 2013, received in U.S. Appl. No. 12/270,815, 12 pages.

Notice of Allowance, dated Apr. 10, 2014, received in Canadian Patent Application No. 2,817,648, which corresponds with U.S. Appl. No. 12/566,660, 1 page.

Office Action, dated Oct. 9, 2013, received in Canadian Patent Application No. 2,817,890, which corresponds with U.S. Appl. No. 12/566,660, 3 pages.

Office Action, dated Apr. 22, 2014, received in Canadian Patent Application No. 2,817,890, which corresponds with U.S. Appl. No. 12/566,660, 3 pages.

(56)

References Cited**OTHER PUBLICATIONS**

Office Action, dated Oct. 31, 2013, received in Chinese Patent Application No. 201080020598.0, which corresponds with U.S. Appl. No. 12/566,660, 4 pages.

Decision to Grant, dated Apr. 24, 2014, received in Chinese Patent Application No. 201080020598.0, which corresponds with U.S. Appl. No. 12/566,660, 1 page.

Office Action, dated Jul. 1, 2015, received in European Patent Application No. 10712825.8, which corresponds with U.S. Appl. No. 12/566,660, 6 pages.

Office Action, dated Mar. 20, 2014, received in European Patent Application No. 11184186.2, which corresponds with U.S. Appl. No. 12/566,660, 5 pages.

Office Action, dated Feb. 24, 2014, received in Japanese Patent Application No. 2012-500844, which corresponds with U.S. Appl. No. 12/566,660, 2 pages.

Notice of Allowance, dated Aug. 1, 2014, received in Japanese Patent Application No. 2012-500844, which corresponds with U.S. Appl. No. 12/566,660, 2 pages.

Office Action, dated Sep. 7, 2015, received in Japanese Patent Application No. 2014-129689, which corresponds with U.S. Appl. No. 12/566,660, 3 pages.

Grant of Patent, dated Jan. 8, 2016, received in Japanese Patent Application No. 2014-129689, which corresponds with U.S. Appl. No. 12/566,660, 2 pages.

Final Office Action, dated May 7, 2014, received in U.S. Appl. No. 12/789,695, 17 pages.

Office Action, dated Jul. 1, 2015, received in U.S. Appl. No. 12/789,695, 15 pages.

Notice of Acceptance, dated May 1, 2014, received in Australian Patent Application No. 2011209720, which corresponds with U.S. Appl. No. 12/789,695, 3 pages.

Office Action, dated Aug. 27, 2015, received in Australian Patent Application No. 2014213525, which corresponds with U.S. Appl. No. 12/789,695, 6 pages.

Decision to Grant, dated Feb. 24, 2014, received in Chinese Application No. 201110063183.8, which corresponds with U.S. Appl. No. 12/789,695, 4 pages.

Office Action, dated Dec. 3, 2015, received in Chinese Patent Application No. 201310557439.X, which corresponds with U.S. Appl. No. 12/789,695, 2 pages.

Office Action, dated Jul. 17, 2015, received in Japanese Patent Application No. 2014-044208, which corresponds with U.S. Appl. No. 12/789,695, 5 pages.

Office Action, dated Apr. 30, 2014, received in Korean Patent Application No. 20127022239, which corresponds with U.S. Appl. No. 12/789,695, 2 pages.

Notice of Allowance, dated Mar. 30, 2015, received in Korean Patent Application No. 2012-7022239, which corresponds with U.S. Appl. No. 12/789,695, 2 pages. (KR version only).

Office Action, dated Dec. 3, 2014, received in Chinese Patent Application No. 201180022994.1, which corresponds with U.S. Appl. No. 12/892,848, 2 pages.

Office Action, dated Nov. 24, 2015, received in Chinese Patent Application No. 201180022994.1, which corresponds with U.S. Appl. No. 12/892,848, 2 pages.

Office Action, dated Aug. 26, 2015, received in European Patent Application No. 11727371.4, which corresponds with U.S. Appl. No. 12/892,848, 9 pages.

Notice of Allowance, dated Aug. 22, 2014, received in Japanese Patent Application No. 2013-515382, which corresponds with U.S. Appl. No. 12/892,848, 3 pages.

Office Action, dated Nov. 13, 2015, received in Japanese Patent Application No. 2014-191701, which corresponds with U.S. Appl. No. 12/892,848, 3 pages.

Office Action, dated May 22, 2014, received in U.S. Appl. No. 12/892,851, 11 pages.

Office Action, dated Dec. 10, 2014, received in Australian Patent Application No. 2011349513, which corresponds with U.S. Appl. No. 13/077,925, 3 pages.

Certificate of Grant, dated Jul. 16, 2015, received in Australian Patent Application No. 2011349513, which corresponds with U.S. Appl. No. 13/077,925, 2 pages.

Office Action, dated Apr. 30, 2014, received in Chinese Patent Application No. 201110463262.8, which corresponds with U.S. Appl. No. 13/077,925, 2 pages.

Office Action, dated Sep. 23, 2015, received in Chinese Patent Application No. 201110463262.8, which corresponds with U.S. Appl. No. 13/077,925, 2 pages.

Office Action, dated Jul. 1, 2014, received in European Patent Application No. 11808779.0, which corresponds with U.S. Appl. No. 13/077,925, 5 pages.

Office Action, dated Oct. 20, 2015, received in Korean Patent Application No. 2014-7036632, which corresponds with U.S. Appl. No. 13/077,925, 2 pages.

Office Action, dated Apr. 8, 2014, received in Taiwanese Patent Application No. 100147539, which corresponds with U.S. Appl. No. 13/077,925, 4 pages.

Notice of Allowance, dated Oct. 5, 2015, received in Taiwanese Patent Application No. 103144867, which corresponds with U.S. Appl. No. 13/077,925, 3 pages.

Office Action, dated Jan. 18, 2012, received in Canadian Patent Application No. 2,653,363, which corresponds with U.S. Appl. No. 12/042,318, 2 pages.

Office Action, dated Sep. 3, 2013, received in Canadian Patent Application No. 2,653,363, which corresponds with U.S. Appl. No. 12/042,318, 3 pages.

Notice of Allowance, dated Apr. 29, 2014, received in Canadian Patent Application No. 2653363, which corresponds with U.S. Appl. No. 12/042,318, 1 page.

Office Action, dated Aug. 6, 2010, received in Chinese Patent Application No. 200910118596.4, which corresponds with U.S. Appl. No. 12/042,318, 2 pages.

Office Action, dated Jun. 5, 2014, received in Chinese Patent Application No. 201110148738.9, which corresponds with U.S. Appl. No. 12/042,318, 2 pages.

Office Action, dated Feb. 8, 2014, received in Chinese Patent Application No. 201110148738.9, which corresponds with U.S. Appl. No. 12/042,318, 2 pages.

Office Action (translation of May 17, 2010 OA), dated Jun. 22, 2010, received in Danish Patent Application No. 102009011687.7, which corresponds with U.S. Appl. No. 12/042,318, 5 pages.

Office Action, dated Feb. 12, 2010, received in European Patent Application No. 09154313.2, which corresponds with U.S. Appl. No. 12/042,318, 1 page.

Decision revoking the European Patent, dated Apr. 2, 2014, received in European Patent Application No. 09154313.2, which corresponds with U.S. Appl. No. 12/042,318, 28 pages.

New Summons for Oral Proceedings, dated Jul. 18, 2013, received in European Patent Application No. 09154313.2, which corresponds with U.S. Appl. No. 12/042,318, 3 pages.

Office Action, dated May 9, 2014, received in European Patent Application No. 11150788.5, which corresponds with U.S. Appl. No. 12/042,318, 6 pages.

Decision to Grant, dated Sep. 17, 2015, received in European Application No. 11150788.5, which corresponds with U.S. Appl. No. 12/042,318, 1 page.

Granted Patent (2302494), dated Oct. 14, 2015, received in European Patent Application No. 11150788.5, which corresponds with U.S. Appl. No. 12/042,318, 1 page.

Office Action, dated May 14, 2014, received in European Patent Application No. 11184167.2, which corresponds with U.S. Appl. No. 12/042,318, 6 pages.

Office Action, dated Apr. 15, 2015, received in European Patent Application No. 11184167.2, which corresponds with U.S. Appl. No. 12/042,318, 3 pages.

Office Action, dated Nov. 25, 2015, received in European Patent Application No. 11184167.2, which corresponds with U.S. Appl. No. 12/042,318, 7 pages.

Office Action, dated May 14, 2014, received in Patent Application No. 11184169.8, which corresponds with U.S. Appl. No. 12/042,318, 6 pages.

(56)

References Cited**OTHER PUBLICATIONS**

Office Action, dated Nov. 25, 2015, received in Patent Application No. 11184169.8, which corresponds with U.S. Appl. No. 12/042,318, 8 pages.

Office Action, dated May 16, 2014, received in European Patent Application No. 11184170.6, which corresponds with U.S. Appl. No. 12/042,318, 5 pages.

Office Action, dated Apr. 16, 2015, received in European Patent Application No. 11184170.6, which corresponds with U.S. Appl. No. 12/042,318, 2 pages.

Office Action, dated Nov. 30, 2015, received in European Patent Application No. 11184170.6, which corresponds with U.S. Appl. No. 12/042,318, 4 pages.

Office Action, dated May 16, 2014, received in European Patent Application No. 11184172.2, which corresponds with U.S. Appl. No. 12/042,318, 5 pages.

Office Action, dated Apr. 17, 2015, received in European Patent Application No. 11184172.2, which corresponds with U.S. Appl. No. 12/042,318, 6 pages.

Office Action, dated Nov. 30, 2015, received in European Patent Application No. 11184172.2, which corresponds with U.S. Appl. No. 12/042,318, 4 pages.

Office Action, dated May 16, 2014, received in European Patent Application No. 11184409.8, which corresponds with U.S. Appl. No. 12/042,318, 6 pages.

Office Action, dated Apr. 22, 2015, received in European Patent Application No. 11184409.8, which corresponds with U.S. Appl. No. 12/042,318, 6 pages.

Office Action, dated Nov. 30, 2015, received in European Patent Application No. 11184409.8, which corresponds with U.S. Appl. No. 12/042,318, 4 pages.

Office Action, dated Oct. 22, 2014, received in European Patent Application No. 12156394.4, which corresponds with U.S. Appl. No. 12/042,318, 6 pages.

Office Action, dated Nov. 25, 2015, received in European Patent Application No. 12156394.4, which corresponds with U.S. Appl. No. 12/042,318, 8 pages.

Office Action, dated Oct. 22, 2014, received in European Patent Application No. 12156395.1, which corresponds with U.S. Appl. No. 12/042,318, 6 pages.

Office Action, dated Nov. 25, 2015, received in European Application No. 12156395.1, which corresponds with U.S. Appl. No. 12/042,318, 9 pages.

Certificate of Grant, dated Jul. 17, 2015, received in Hong Kong Patent Application No. 12105027.2, which corresponds with U.S. Appl. No. 12/042,318, 2 pages.

Office Action, dated Jul. 20, 2015, received in Israel Patent Application No. 197386, which corresponds with U.S. Appl. No. 12/042,318, 3 pages.

Notice of Allowance, dated Nov. 23, 2015, received in Israel Patent Application No. 197386, which corresponds with U.S. Appl. No. 12/042,318, 2 pages.

Decision to Refuse, dated Jul. 15, 2013, received in European Patent Application No. 09700006.1, which corresponds with U.S. Appl. No. 12/042,067, 12 pages.

Summons to Oral Proceedings, dated Mar. 10, 2015, received in European Patent Application No. 09700006.1, which corresponds with U.S. Appl. No. 12/042,067, 9 pages.

Decision to Grant, dated Jan. 15, 2016, received in European Patent Application No. 09700006.1, which corresponds with U.S. Appl. No. 12/042,067, 5 pages.

Office Action, dated Oct. 30, 2013, received in European Patent Application No. 12188748.3, which corresponds with U.S. Appl. No. 12/042,067, 5 pages.

Decision to refuse, dated Dec. 12, 2014, received in European Patent Application No. 12188748.3, which corresponds with U.S. Appl. No. 12/042,067, 12 pages.

Summons to Attend Oral Proceedings, dated Apr. 22, 2014, received in European Patent Application No. 12188748.3, which corresponds with U.S. Appl. No. 12/042,067, 3 pages.

Office Action, dated Jan. 6, 2014, received in Japanese Patent Application No. 2012-224838, which corresponds with U.S. Appl. No. 12/042,067, 1 page.

Office Action, dated Mar. 9, 2012, received in European Patent Application No. 09700007.9, which corresponds with U.S. Appl. No. 12/042,299, 7 pages.

Office Action, dated Aug. 28, 2014, received in European Patent Application No. 09700007.9, which corresponds with U.S. Appl. No. 12/042,299, 8 pages.

Decision to Refuse, dated Feb. 11, 2015, received in European Patent Application No. 11184224.1, which corresponds with U.S. Appl. No. 12/042,299, 10 pages.

Decision to refuse, dated Feb. 11, 2015, received in European Patent Application No. 11184223.3, which corresponds with U.S. Appl. No. 12/042,299, 10 pages.

Decision to refuse dated Feb. 11, 2015, received in European Patent Application No. 11184222.5, which corresponds with U.S. Appl. No. 12/042,299, 10 pages.

Decision to Grant, dated Feb. 16, 2015, received in Japanese Patent Application No. 2012-088747, which corresponds with U.S. Appl. No. 12/042,299, 3 pages.

Office Action, dated Aug. 11, 2014, received in Japanese Patent Application No. 2012-088747, which corresponds with U.S. Appl. No. 12/042,299, 1 page.

Office Action, dated Nov. 30, 2015, received in Japanese Patent Application No. 2014-250268, which corresponds with U.S. Appl. No. 12/042,299, 4 pages.

Office Action, dated Jul. 17, 2014, received in U.S. Appl. 13/077,931, 21 pages.

Office Action, dated Aug. 20, 2015, received in U.S. Appl. No. 13/077,931, 22 pages.

Notice of Allowance, dated Dec. 31, 2014, received in U.S. Appl. No. 13/077,931, 8 pages.

Notice of Allowance, dated Jan. 14, 2016, received in U.S. Appl. No. 13/077,931, 8 pages.

Office Action, dated Oct. 24, 2013, received in U.S. Appl. No. 13/163,624, 8 pages.

Notice of Allowance, dated May 12, 2014, received in U.S. Appl. No. 13/163,624, 5 pages.

Notice of Allowance, dated Mar. 31, 2014, received in U.S. Appl. No. 13/163,626, 5 pages.

Office Action, dated Dec. 30, 2010, received in U.S. Appl. No. 12/042,237, 9 pages.

Final Office Action, dated Jun. 2, 2011, received in U.S. Appl. No. 12/042,237, 9 pages.

Office Action, dated Jul. 12, 2010, received in European Patent Application No. 09700008.7, which corresponds with U.S. Appl. No. 12/042,237, 3 pages.

Summons to oral proceedings, dated Mar. 10, 2015, received in European Patent Application No. 09700008.7, which corresponds with U.S. Appl. No. 12/042,299, 12 pages.

Decision to Refuse, dated Oct. 8, 2013, received in European Patent Application No. 09700008.7, which corresponds with U.S. Appl. No. 12/042,237, 15 pages.

Decision to Grant, dated Dec. 2, 2015, received in European Patent Application No. 09700008.7, which corresponds with U.S. Appl. No. 12/042,237, 5 pages.

Office Action, dated Mar. 4, 2013, received in Japanese Patent Application No. 2010-502357, which corresponds with U.S. Appl. No. 12/042,237, 2 pages.

Decision to Grant, dated Mar. 28, 2014, received in Japanese Patent Application No. 2010-502357, which corresponds with U.S. Appl. No. 12/042,237, 1 page.

Letters Patent, dated Oct. 31, 2014, received in Japanese Patent Application No. 2012-218235, which corresponds with U.S. Appl. No. 12/042,237, 3 pages.

Office Action, dated Sep. 24, 2013, received in Japanese Patent Application No. 2012-218235, which corresponds with U.S. Appl. No. 12/042,237, 3 pages.

Office Action, dated May 20, 2015, received in U.S. Appl. No. 13/221,827, 26 pages.

Office Action, dated Jun. 23, 2014, received in U.S. Appl. No. 13/221,827, 18 pages.

(56)

References Cited**OTHER PUBLICATIONS**

Office Action, dated Jan. 20, 2015, received in European Patent Application No. 08712964.9, which corresponds with U.S. Appl. No. 11/620,717, 8 pages.

Office Action, dated Oct. 24, 2011, received in U.S. Appl. No. 12/869,182, 7 pages.

Notice of Allowance, dated Feb. 23, 2012, received in U.S. Appl. No. 12/869,182, 5 pages.

Office Action, dated Nov. 4, 2011, received in U.S. Appl. No. 11/620,727, 15 pages.

Examiner's Answer, dated Feb. 13, 2014, received in U.S. Appl. No. 11/620,727, 23 pages.

Office Action, dated Jan. 6, 2012, received in Chinese Patent Application No. 200880001811.6, which corresponds with U.S. Appl. No. 11/620,727, 2 pages.

Office Action, dated Aug. 10, 2011, received in Chinese Patent Application No. 200880001811.6, which corresponds with U.S. Appl. No. 11/620,727, 7 pages.

Office Action, dated Oct. 21, 2010, received in Chinese Patent Application No. 200880001811.6, which corresponds with U.S. Appl. No. 11/620,727, 2 pages.

Office Action, dated Feb. 21, 2014, received in Chinese Patent Application No. 201210128932.5, which corresponds with U.S. Appl. No. 11/620,727, 3 pages.

Office Action, dated Oct. 30, 2014, received in Chinese Patent Application No. 201210128932.5, which corresponds with U.S. Appl. No. 11/620,727, 3 pages.

Office Action, dated Nov. 19, 2015, received in Chinese Patent Application No. 201210128932.5, which corresponds with U.S. Appl. No. 11/620,727, 6 pages.

Office Action, dated Dec. 24, 2014, received in Chinese Patent Application No. 201210128915.1, which corresponds with U.S. Appl. No. 11/620,727, 2 pages.

Office Action, dated Nov. 15, 2014, received in Chinese Patent Application No. 201210128911.3, which corresponds with U.S. Appl. No. 11/620,727, 2 pages.

Office Action, dated Dec. 19, 2011, received in European Patent Application No. 08705471.4, which corresponds with U.S. Appl. No. 11/620,727, 6 pages.

Office Action, dated Jan. 29, 2015, received in Patent Application No. 08705471.4, which corresponds with U.S. Appl. No. 11/620,727, 8 pages.

Final Office Action, dated May 20, 2014, received in U.S. Appl. No. 13/221,836, 36 pages.

Examiner's Answer, dated Feb. 11, 2014, received in U.S. Appl. No. 13/221,837, 19 pages.

Office Action, dated Jan. 10, 2012, received in U.S. Appl. No. 13/251,121, 16 pages.

Office Action, dated May 1, 2013, received in U.S. Appl. No. 13/251,121, 17 pages.

Examiner's Answer, dated Apr. 29, 2014, received in U.S. Appl. No. 13/251,121, 41 pages.

Office Action, dated Jan. 31, 2012, received in U.S. Appl. No. 13/251,146, 16 pages.

Examiner's Answer, dated May 7, 2014, received in U.S. Appl. No. 13/251,146, 43 pages.

Office Action, dated Feb. 10, 2012, received in U.S. Appl. No. 13/251,150, 23 pages.

Examiner's Answer, dated Jun. 17, 2014, received in U.S. Appl. No. 13/251,150, 47 pages.

Office Action, dated Jan. 20, 2012, received in U.S. Appl. No. 13/251,152, 20 pages.

Examiner's Answer, dated May 21, 2014, received in U.S. Appl. No. 13/251,152, 45 pages.

Examiner's Answer, dated Feb. 13, 2014, received in U.S. Appl. No. 11/620,715, 22 pages.

Office Action, dated Jul. 21, 2011, received in Chinese Patent Application No. 200880001855.9, which corresponds with U.S. Appl. No. 11/620,715, 19 pages.

Office Action, dated Oct. 20, 2014, received in European Patent Application No. 08712946.6, which corresponds with U.S. Appl. No. 11/620,715, 6 pages.

Office Action, dated Mar. 30, 2012, received in U.S. Appl. No. 12/207,429, 9 pages.

Office Action, dated Apr. 28, 2015, received in U.S. Appl. No. 13/791,621, 6 pages.

Notice of Allowance, dated Nov. 5, 2015, received in U.S. Appl. No. 13/791,621, 5 pages.

Notice of Allowance, dated Nov. 15, 2013, received in U.S. Appl. No. 13/867,950, 7 pages.

Office Action, dated Jan. 4, 2016, received in U.S. Appl. No. 14/171,680, 7 pages.

Notice of Allowance, dated May 28, 2015, received in U.S. Appl. No. 14/180,267, 11 pages.

Notice of Allowance, dated Sep. 15, 2015, received in U.S. Appl. No. 14/180,267, 5 pages.

Notice of Allowance, dated Dec. 31, 2015, received in U.S. Appl. No. 14/180,267, 5 pages.

Office Action, dated Sep. 24, 2014, received in U.S. Appl. No. 14/189,922, 6 pages.

European Search Report, dated Nov. 29, 2011, received in European Patent Application No. 11182954.5, which corresponds with U.S. Appl. No. 11/956,969, 4 pages.

Extended European Search Report, dated Nov. 30, 2011, received in European Patent Application No. 11182959.4, which corresponds with U.S. Appl. No. 11/956,969, 4 pages.

Extended European Search Report, dated Dec. 1, 2011, received in European Patent Application No. 11182962.8, which corresponds with U.S. Appl. No. 11/956,969, 5 pages.

Extended European Search Report, dated Dec. 1, 2011, received in European Patent Application No. 11182963.6, which corresponds with U.S. Appl. No. 11/956,969, 5 pages.

International Search Report and Written Opinion, dated Sep. 19, 2008, received in International Patent Application No. PCT/US2008/050292, which corresponds with U.S. Appl. No. 11/956,969, 25 pages.

Invitation to Pay Additional Fees, dated Jul. 18, 2008, International Patent Application No. PCT/US2008/050292, which corresponds with U.S. Appl. No. 11/956,969, 4 pages.

Extended European Search Report, dated May 20, 2011, received in European Patent Application No. 11152015.1, which corresponds with U.S. Appl. No. 12/789,695, 6 pages.

International Preliminary Report on Patentability, dated Aug. 9, 2012, received in International Patent Application No. PCT/US2011/022516, which corresponds with U.S. Appl. No. 12/789,695, 11 pages.

Notice of Opposition to Patent, dated Nov. 8, 2011, received in European Patent Application No. 09154313.2, (U.S. Pat. No. 2098948), which corresponds with U.S. Appl. No. 12/042,318, 26 pages.

Extended European Search Report, dated Mar. 1, 2011, received in European Patent Application No. 11150788.5, which corresponds with U.S. Appl. No. 12/042,318, 4 pages.

Extended European Search Report, dated Jun. 5, 2012, received in European Patent Application No. 12156394.4, which corresponds with U.S. Appl. No. 12/042,318, 4 pages.

European Search Report, dated Jun. 6, 2012, received in European Patent Application No. 12156395.1, which corresponds with U.S. Appl. No. 12/042,318, 4 pages.

Extended European Search Report, dated Jan. 13, 2012, received in European Patent Application No. 11184223.3, which corresponds with U.S. Appl. No. 12/042,299, 4 pages.

* cited by examiner

102

104

108

106

105

110

Cancel Clear Accept

Sample Note

FIG. 1

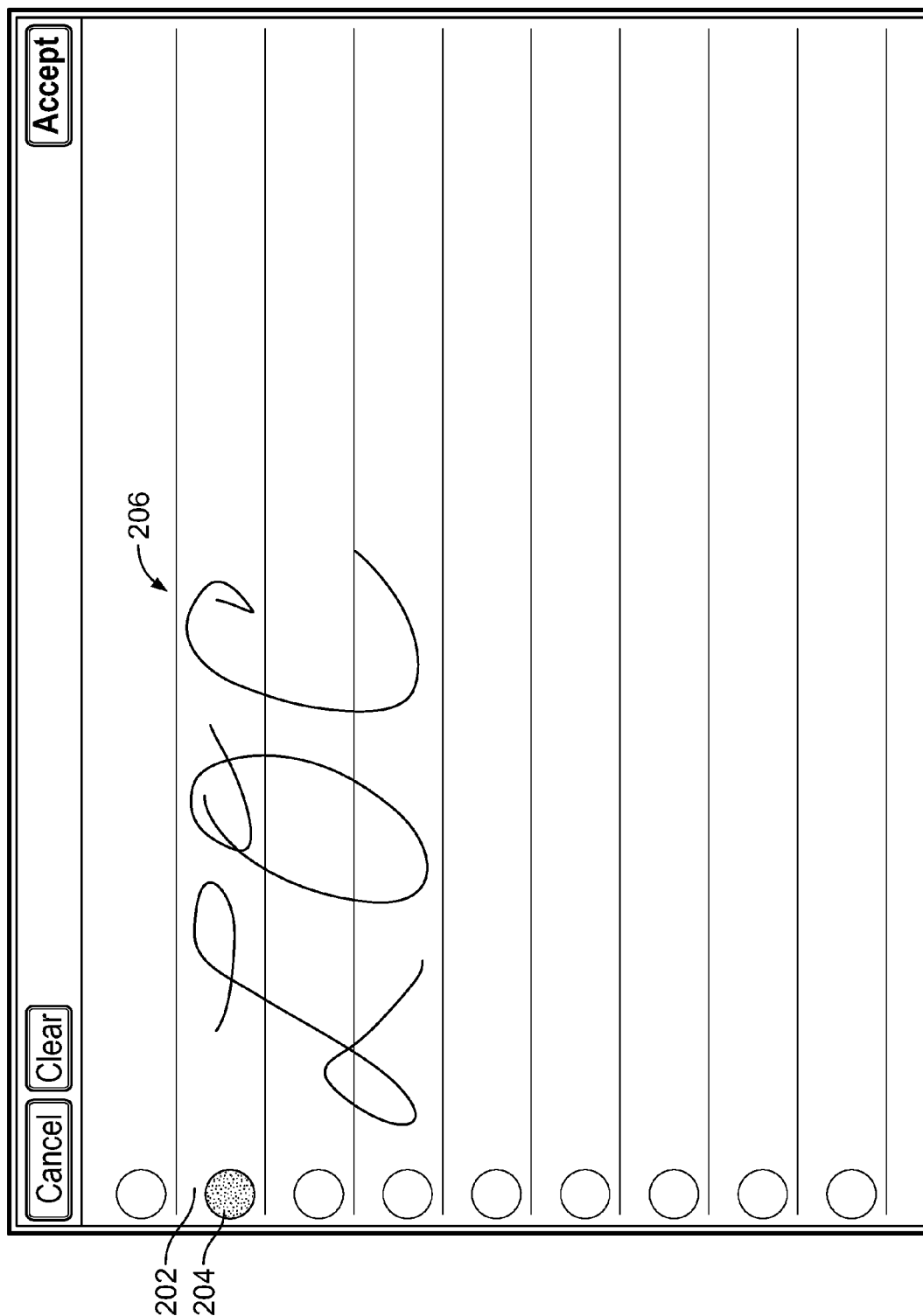


FIG. 2

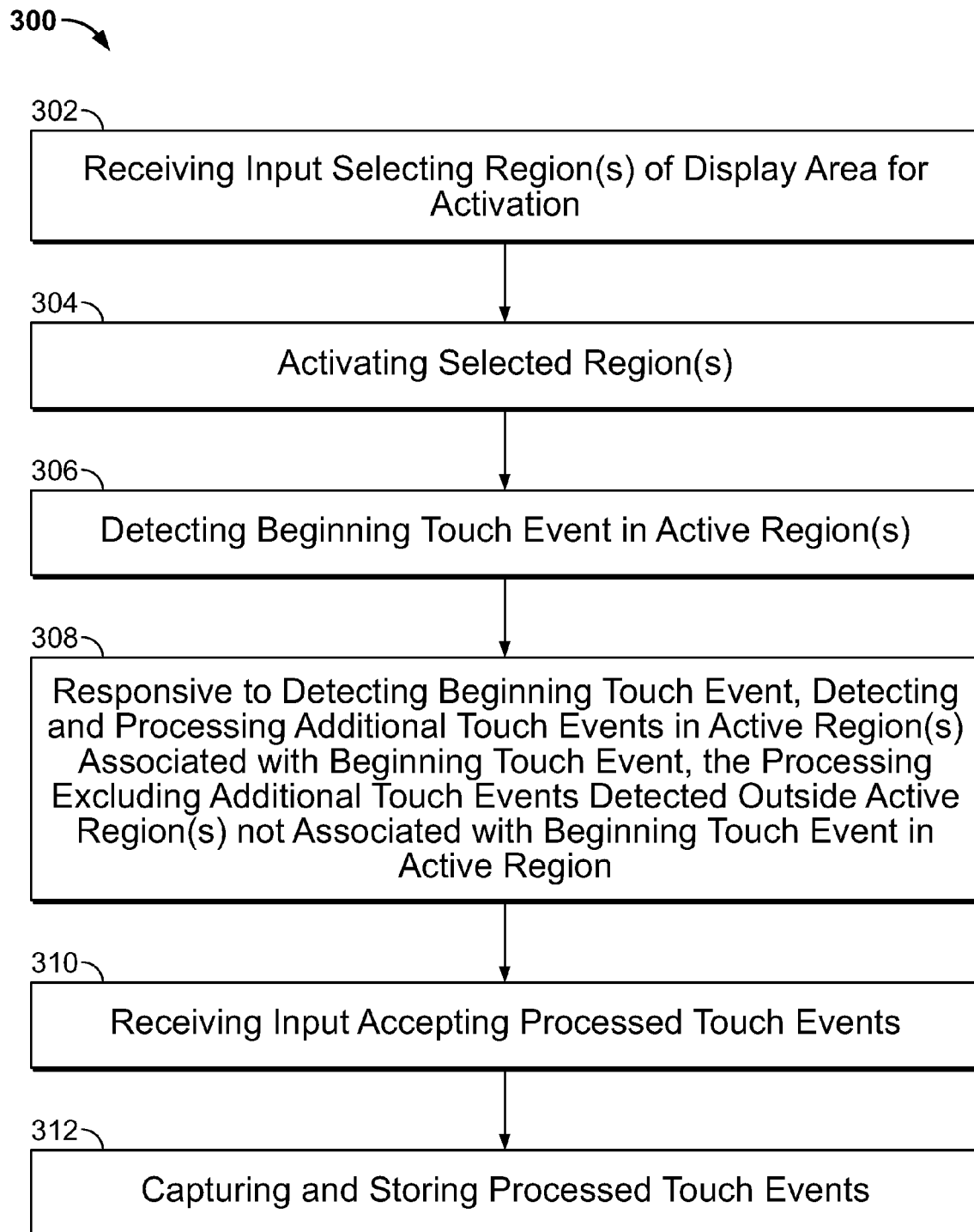


FIG. 3

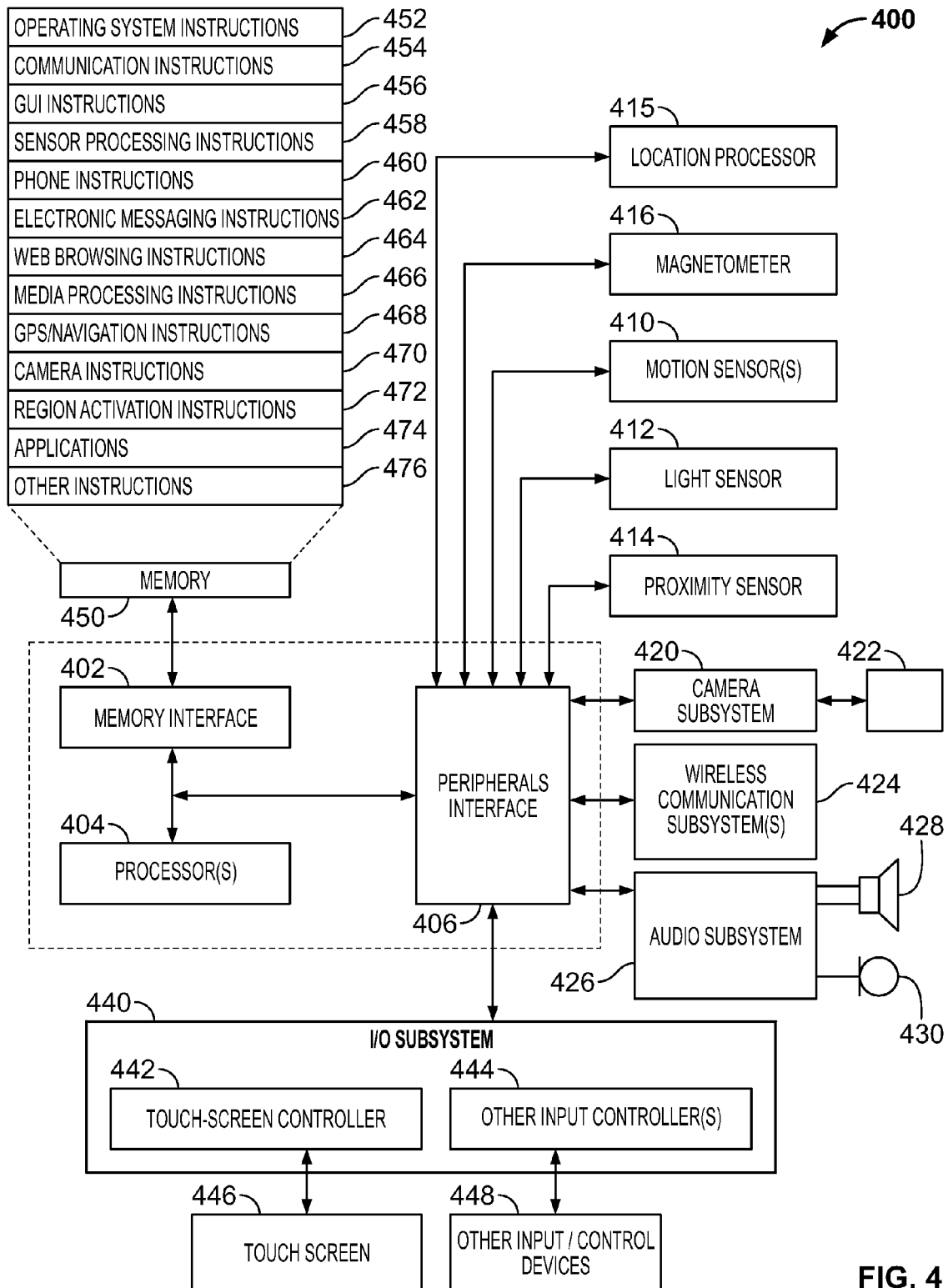


FIG. 4

1

REGION ACTIVATION FOR TOUCH SENSITIVE SURFACE

TECHNICAL FIELD

This disclosure relates generally to devices having touch sensitive surfaces.

BACKGROUND

Modern mobile devices (e.g., electronic tablets) can run applications that allow a user to capture handwritten notes using a touch sensitive surface. While handwriting on the touch sensitive surface, a typical user may rest their palm or side of their hand on the touch sensitive surface for support, causing the device to register a touch input. To avoid such inadvertent touch input, the user can elevate their hand above the touch surface when writing. This workaround can be awkward and tiring to the user.

SUMMARY

One or more regions of a touch sensitive surface can be activated individually by a user. A region defines an active input area for processing touch input events. Any touch event associated with a beginning touch event that is detected in the active area is processed for display. Any touch input event detected outside the active region that is not associated with the beginning touch event is excluded from the processing. In some implementations, a region can be visually delineated by horizontal rule lines of a virtual notebook page. A selector/indicator can be displayed at the left or right end of the region for activating the corresponding region. Once a writing gesture is started in the active region, the writing gesture can extend outside of the active region so long as the writing gesture is made without interruption. When a region is activated by a user touching the selector/indicator, the selector/indicator can be visually augmented to indicate that its corresponding region is active. When the writing gesture is completed by the user, the writing gesture displayed in the active region can be captured and stored for use with other applications.

Particular implementations of region activation for a touch sensitive surface, provides one or more of the following advantages. A user can independently activate one or more regions of a touch sensitive surface to avoid registering inadvertent touch inputs outside the active region. The active regions can be captured and stored for use with other applications.

The details of one or more disclosed implementations are set forth in the accompanying drawings and the description below. Other features, aspects, and advantages will become apparent from the description, the drawings and the claims.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 illustrates a touch sensitive surface with individually selectable active regions.

FIG. 2 illustrates the touch sensitive surface with writing extending outside a selected active region.

FIG. 3 is a flow diagram of an exemplary process for activating and processing for display a region on a touch sensitive surface.

FIG. 4 is a block diagram of an exemplary device architecture that implements the features and processes described with reference to FIGS. 1-3.

2

Like reference symbols in the various drawings indicate like elements.

DETAILED DESCRIPTION

Exemplary Active Region for Touch Sensitive Surface

FIG. 1 illustrates an exemplary touch sensitive surface **100** with individually selectable active regions **102**. In some implementations, touch sensitive surface **100** can be a virtual notepad with pages having horizontal rule lines to provide visual guides for handwritten notes. In the example shown, region **102** is the writing area above rule line **105**. A user has made a handwritten note ("Sample Note") in region **102** using their finger, a stylus or other suitable writing instrument.

In the example shown, a user interface element **104** is displayed on the left end of each region **102**. User interface element **104** is a selector/indicator that can be touched by a user to activate the corresponding region **102**. For example, the user can touch user interface element **104** to activate corresponding region **102**. Activating a region means that touch events (e.g., writing gestures) initiated in region **102** can be detected and processed for display by a processor of the device, resulting in an immediate, real-time display of the user's handwriting. That is, touch events (e.g., writing gestures) are detected and processed for display in real-time to create the appearance that the user is handwriting on touch sensitive surface **100**.

In general, touches started outside of active region **102** are ignored, while touches initiated within active region **102** are used to start a currently active path. The continuation of a touch started within active region **102** (e.g., a writing gesture) causes curves to be added to the currently active path using, for example, a cubic Bézier path generator as described in co-pending U.S. patent application Ser. No. 13/084,355, for "Handwriting Capture Techniques," filed even date herewith. At any given time, only one active path is recognized by the device as a continuation of a touch gesture.

In some implementations, touch screen driver software translates touch signals from hardware (e.g., a capacitive touch screen) into touch events, which can be aggregated into touch gestures using a touch input model. The touch events or gestures can be provided to an operating system or other applications through an Application Programming Interface (API) where the touch events can be further processed.

Generally, user interface element **104** can be any size or shape and located anywhere on touch sensitive surface **100**. In the example shown, user interface element **104** is a circle that is visually augmented (e.g., filled with color) when selected to indicate its selection and the active status of its corresponding active region **102**. Visually augmenting user interface element **104** can include, but is not limited to changing the color, shape or size of the element, animating the element, highlighting the user interface element or its background, or the like. In some implementations, selection of region **102** can be indicated by audio or force feedback (e.g., a vibration) in addition or in lieu of visual augmentation.

In some implementations, user interface element **104** can be displayed at left or right ends of each region **102** to facilitate selection by left or right-handed users. A settings menu or similar input mechanism can allow users to select the location of user interface element **104** on touch sensitive surface **100**. In some implementations, user interface element **104** can be a hardware button.

When the user is finished writing in active region **102**, the user can select the "Accept" button **106** to capture the hand-

3

written note in active region **102** and stored in a digital image format (e.g., .png). Only the content drawn within active region **102** is captured. Once captured and stored, the content can be used with other applications. Upon acceptance, active region **102** can be deactivated automatically. A “Clear” button **108** can be used to clear the entire active region **102** of its contents.

FIG. 2 illustrates the touch sensitive surface with a writing gesture extending outside the selected active region. In the example shown, the user activated region **202** using selector/indicator **204**. The user then initiated a beginning touch event in active region **202**. For example, the user placed their finger or stylus on touch screen **100** in active region **202** to begin a writing gesture. After the beginning touch event, the user extended the writing gesture outside active region **202**. The portions of the writing gesture extending outside active region **202** were processed and displayed since the writing gesture began inside the active region and the extended portions are part of the writing gesture, i.e., associated with the beginning touch event. When the user accepts the writing (e.g., by selecting the “Accept” button), the contents of active region **202** are captured and stored for use with other applications. In this example, the portions of the letters “LOC” extending outside active region **202** are truncated and thus excluded from the screen capture.

Exemplary Process Flow

FIG. 3 is a flow diagram of an exemplary process **300** for activating a region on a touch sensitive surface. Process **300** can be implemented by device architecture **400**, as described in reference to FIG. 4.

In some implementations, process **300** can begin by receiving input selecting region(s) of touch sensitive surface for activation (**302**). In some implementations, the touch sensitive surface can be a touch sensitive display of a device (e.g., computer, mobile phone, electronic tablet). A region can be selected by touching a selector/indicator corresponding to the region, as described in reference to FIGS. 1 and 2.

The user interface element can be visually augmented to indicate selection of its corresponding region. Other feedback is also possible. For example, audio or force feedback (e.g., a vibration) can be used to indicate selection of a region. A region can be any portion of a touch sensitive surface and have any shape or size. In some implementations, a region can be the writing area between two horizontal rule lines of a virtual notebook page, as shown in FIGS. 1-2. Generally, the user interface element for selecting a corresponding region can be located anywhere on the touch sensitive surface and can be any size or shape. In the notebook example of FIGS. 1-2, a user interface element is displayed at the left end of each region to facilitate easy selection by a right-handed user.

Process **300** can continue by activating the selected region (s) (**304**). Once activated, any touch input in the active region will be detected and processed by the device for display.

Process **300** can continue by detecting a beginning touch event in the active region (**306**). A beginning touch event can occur when the user first touches the active region with a finger, stylus or other writing instrument.

Process **300** continues detecting and processing additional touch events in active region(s) associated with the beginning touch event (**308**). The processing excludes additional touch events detected outside the active region(s) that are not associated with the beginning touch event in the active region(s).

Process **310** continues by receiving input accepting the processed touch events (**310**), and capturing and storing the processed touch events (**312**). A user can accept touch events

4

by selecting a virtual button or providing other detectable input. Upon acceptance, the content in the active region can be captured into a digital image and stored (e.g., stored in a container object) for use by other applications.

Exemplary Device Architecture

FIG. 4 is a block diagram illustrating exemplary device architecture implementing features and operations described in reference to FIGS. 1-5. Device **400** can be any device capable of capturing handwriting on a touch sensitive surface, including but not limited to smart phones and electronic tablets. Device **400** can include memory interface **402**, one or more data processors, image processors or central processing units **404**, and peripherals interface **406**. Memory interface **402**, processor(s) **404** or peripherals interface **406** can be separate components or can be integrated in one or more integrated circuits. The various components can be coupled by one or more communication buses or signal lines.

Sensors, devices, and subsystems can be coupled to peripherals interface **406** to facilitate multiple functionalities. For example, motion sensor **410**, light sensor **412**, and proximity sensor **414** can be coupled to peripherals interface **406** to facilitate orientation, lighting, and proximity functions of the mobile device. For example, in some implementations, light sensor **412** can be utilized to facilitate adjusting the brightness of touch screen **446**. In some implementations, motion sensor **410** (e.g., an accelerometer, gyros) can be utilized to detect movement and orientation of the device **400**. Accordingly, display objects or media can be presented according to a detected orientation, e.g., portrait or landscape.

Other sensors can also be connected to peripherals interface **406**, such as a temperature sensor, a biometric sensor, or other sensing device, to facilitate related functionalities.

Location processor **415** (e.g., GPS receiver) can be connected to peripherals interface **406** to provide geo-positioning. Electronic magnetometer **416** (e.g., an integrated circuit chip) can also be connected to peripherals interface **406** to provide data that can be used to determine the direction of magnetic North. Thus, electronic magnetometer **416** can be used as an electronic compass.

Camera subsystem **420** and an optical sensor **422**, e.g., a charged coupled device (CCD) or a complementary metal-oxide semiconductor (CMOS) optical sensor, can be utilized to facilitate camera functions, such as recording photographs and video clips.

Communication functions can be facilitated through one or more communication subsystems **424**. Communication subsystem(s) **424** can include one or more wireless communication subsystems **424**. Wireless communication subsystems can include radio frequency receivers and transmitters and/or optical (e.g., infrared) receivers and transmitters. Wired communication system can include a port device, e.g., a Universal Serial Bus (USB) port or some other wired port connection that can be used to establish a wired connection to other computing devices, such as other communication devices, network access devices, a personal computer, a printer, a display screen, or other processing devices capable of receiving or transmitting data. The specific design and implementation of the communication subsystem **424** can depend on the communication network(s) or medium(s) over which device **400** is intended to operate. For example, a mobile device can include communication subsystems **424** designed to operate over a GSM network, a GPRS network, an EDGE network, a WiFi or WiMax network, and a Bluetooth network. In particular, the wireless communication subsystems **424** can include For example, device **400** may include wireless

5

communication subsystems designed to operate over a global system for mobile communications (GSM) network, a GPRS network, an enhanced data GSM environment (EDGE) network, 802.x communication networks (e.g., WiFi, WiMax, or 3G networks), code division multiple access (CDMA) networks, and a Bluetooth™ network. Communication subsystems **424** may include hosting protocols such that the mobile device **400** may be configured as a base station for other wireless devices. As another example, the communication subsystems can allow the device to synchronize with a host device using one or more protocols, such as, for example, the TCP/IP protocol, HTTP protocol, UDP protocol, and any other known protocol.

Audio subsystem **426** can be coupled to a speaker **428** and one or more microphones **430** to facilitate voice-enabled functions, such as voice recognition, voice replication, digital recording, and telephony functions.

I/O subsystem **440** can include touch screen controller **442** and/or other input controller(s) **444**. Touch-screen controller **442** can be coupled to a touch screen **446** or pad. Touch screen **446** and touch screen controller **442** can, for example, detect contact and movement or break thereof using any of a number of touch sensitivity technologies, including but not limited to capacitive, resistive, infrared, and surface acoustic wave technologies, as well as other proximity sensor arrays or other elements for determining one or more points of contact with touch screen **446**.

Other input controller(s) **444** can be coupled to other input/control devices **448**, such as one or more buttons, rocker switches, thumb-wheel, infrared port, USB port, and/or a pointer device such as a stylus. The one or more buttons (not shown) can include an up/down button for volume control of speaker **428** and/or microphone **430**.

In one implementation, a pressing of the button for a first duration may disengage a lock of the touch screen **446**; and a pressing of the button for a second duration that is longer than the first duration may turn power to mobile device **400** on or off. The user may be able to customize a functionality of one or more of the buttons. The touch screen **446** can also be used to implement virtual or soft buttons and/or a keyboard.

In some implementations, device **110** can present recorded audio and/or video files, such as MP3, AAC, and MPEG files. In some implementations, mobile device **110** can include the functionality of an MP3 player and may include a pin connector for tethering to other devices. Other input/output and control devices can be used.

Memory interface **402** can be coupled to memory **450**. Memory **450** can include high-speed random access memory or non-volatile memory, such as one or more magnetic disk storage devices, one or more optical storage devices, or flash memory (e.g., NAND, NOR). Memory **450** can store operating system **452**, such as Darwin, RTXC, LINUX, UNIX, OS X, WINDOWS, or an embedded operating system such as VxWorks. Operating system **452** may include instructions for handling basic system services and for performing hardware dependent tasks. In some implementations, operating system **452** can include a kernel (e.g., UNIX kernel).

Memory **450** may also store communication instructions **454** to facilitate communicating with one or more additional devices, one or more computers and/or one or more servers. Communication instructions **454** can also be used to select an operational mode or communication medium for use by the device, based on a geographic location (obtained by the GPS/Navigation instructions **468**) of the device. Memory **450** may include graphical user interface instructions **456** to facilitate graphic user interface processing; sensor processing instructions **458** to facilitate sensor-related processing and func-

6

tions; phone instructions **460** to facilitate phone-related processes and functions; electronic messaging instructions **442** to facilitate electronic-messaging related processes and functions; web browsing instructions **464** to facilitate web browsing-related processes and functions; media processing instructions **466** to facilitate media processing-related processes and functions; GPS/Navigation instructions **468** to facilitate GPS and navigation-related processes and instructions; camera instructions **470** to facilitate camera-related processes and functions; region activation instructions **472** for the processes and features described with reference to FIGS. 1-3 Region Ac; and application instructions **474**. The memory **450** may also store other software instructions **476** for facilitating other processes, features and applications.

Each of the above identified instructions and applications can correspond to a set of instructions for performing one or more functions described above. These instructions need not be implemented as separate software programs, procedures, or modules. Memory **450** can include additional instructions or fewer instructions. Furthermore, various functions of the mobile device may be implemented in hardware and/or in software, including in one or more signal processing and/or application specific integrated circuits.

The described features can be implemented advantageously in one or more computer programs that are executable on a programmable system including at least one programmable processor coupled to receive data and instructions from, and to transmit data and instructions to, a data storage system, at least one input device, and at least one output device. A computer program is a set of instructions that can be used, directly or indirectly, in a computer to perform a certain activity or bring about a certain result. A computer program can be written in any form of programming language (e.g., Objective-C, Java), including compiled or interpreted languages, and it can be deployed in any form, including as a stand-alone program or as a module, component, subroutine, or other unit suitable for use in a computing environment.

Suitable processors for the execution of a program of instructions include, by way of example, both general and special purpose microprocessors, and the sole processor or one of multiple processors or cores, of any kind of computer. Generally, a processor will receive instructions and data from a read-only memory or a random access memory or both. The essential elements of a computer are a processor for executing instructions and one or more memories for storing instructions and data. Generally, a computer will also include, or be operatively coupled to, communicate with, one or more mass storage devices for storing data files; such devices include magnetic disks, such as internal hard disks and removable disks; magneto-optical disks; and optical disks.

Storage devices suitable for tangibly embodying computer program instructions and data include all forms of non-volatile memory, including by way of semiconductor memory devices, such as EPROM, EEPROM, and flash memory devices; magnetic disks such as internal hard disks and removable disks; magneto-optical disks; and CD-ROM and DVD-ROM disks. The processor and the memory can be supplemented by, or incorporated in, ASICs (application-specific integrated circuits).

To provide for interaction with a player, the features can be implemented on a computer having a display device, such as a CRT (cathode ray tube) or LCD (liquid crystal display) monitor for displaying information to the player. The computer can also have a keyboard and a pointing device such as a game controller, mouse or a trackball by which the player can provide input to the computer.

The features can be implemented in a computer system that includes a back-end component, such as a data server, that includes a middleware component, such as an application server or an Internet server, or that includes a front-end component, such as a client computer having a graphical user interface or an Internet browser, or any combination of them. The components of the system can be connected by any form or medium of digital data communication such as a communication network. Some examples of communication networks include LAN, WAN and the computers and networks forming the Internet.

The computer system can include clients and servers. A client and server are generally remote from each other and typically interact through a network. The relationship of client and server arises by virtue of computer programs running on the respective computers and having a client-server relationship to each other.

One or more features or steps of the disclosed embodiments can be implemented using an API. An API can define on or more parameters that are passed between a calling application and other software code (e.g., an operating system, library routine, function) that provides a service, that provides data, or that performs an operation or a computation. The API can be implemented as one or more calls in program code that send or receive one or more parameters through a parameter list or other structure based on a call convention defined in an API specification document. A parameter can be a constant, a key, a data structure, an object, an object class, a variable, a data type, a pointer, an array, a list, or another call. API calls and parameters can be implemented in any programming language. The programming language can define the vocabulary and calling convention that a programmer will employ to access functions supporting the API. In some implementations, an API call can report to an application the capabilities of a device running the application, such as input capability, output capability, processing capability, power capability, communications capability, etc.

A number of implementations have been described. Nevertheless, it will be understood that various modifications may be made. For example, other steps may be provided, or steps may be eliminated, from the described flows, and other components may be added to, or removed from, the described systems. Accordingly, other implementations are within the scope of the following claims.

What is claimed is:

1. A method comprising:

at an electronic device including one or more processors, memory, and a touch-sensitive display;
concurrently displaying on the touch-sensitive display a plurality of visually delineated regions, including a first visually delineated region, and
a plurality of user interface elements, including a first user interface element associated with the first region;
while displaying the plurality of visually delineated regions on the touch-sensitive display:
receiving an input that selects the first user interface element;
in response to receiving the input that select the first user interface element, activating the first visually delineated region;
while the first visually delineated region is activated:
for all touch gestures that are detected starting at a location on the touch-sensitive display with a beginning touch event that is located within the first visually delineated region, processing additional touch events of a respective touch gesture

that are a continuation of the beginning touch event and are made without interruption, including touch events in the respective touch gesture that extend outside the first visually delineated region; and

for all touch gestures that are detected starting at a location on the touch-sensitive display with a beginning touch event that is located outside the first visually delineated region, not processing a respective touch gesture as input for the first visually delineated region.

2. The method of claim 1, wherein:

processing the additional touch events of a respective touch gesture that are a continuation of the beginning touch event and are made without interruption includes displaying a respective path, corresponding to the respective touch gesture, on the touch-sensitive display.

3. The method of claim 2, further comprising:

capturing and storing one or more paths, including the respective path, in the one or more active regions, excluding one or more portions of the one or more paths outside the one or more active regions.

4. The method of claim 1, including:

prior to receiving the input that selects the first user interface element, displaying the plurality of visually delineated regions and the plurality of user interface elements on the touch-sensitive surface, wherein respective user interface elements of the plurality of user interface elements indicate whether respective visually delineated regions, of the plurality of visually delineated regions, associated with the respective user interface elements are selected.

5. The method of claim 1, wherein the first user interface element, distinct from the first visually delineated region, is displayed proximate to the first visually delineated region.

6. The method of claim 1, wherein, while the first user interface element is selected, the first user interface element is visually augmented to indicate its selection.

7. The method of claim 1, further comprising:

receiving second input selecting a second visually delineated region of the touch-sensitive display for activation based on selection of a second user interface element, of the plurality of user interface elements displayed on the touch-sensitive surface, associated with the second visually delineated region, wherein the first user interface element is distinct from the second user interface element; and

activating the second visually delineated region while maintaining the first visually delineated region as an active region.

8. The method of claim 1, wherein all the touch gestures are detected with one or more proximity sensors.

9. A system comprising:

a touch-sensitive display;
one or more processors; and
memory storing one or more programs for execution by the one or more processors, the one or more programs including instructions for:
concurrently displaying on the touch-sensitive display a plurality of visually delineated regions, including a first visually delineated region, and
a plurality of user interface elements, including a first user interface element associated with the first region;
while displaying the plurality of visually delineated regions on the touch-sensitive display:

9

receiving an input that selects the first user interface element;

in response to receiving the input that select the first user interface element, activating the first visually delineated region;

while the first visually delineated region is activated:

for all touch gestures that are detected starting at a location on the touch-sensitive display with a beginning touch event that is located within the first visually delineated region, processing additional touch events of a respective touch gesture that are a continuation of the beginning touch event and are made without interruption, including touch events in the respective touch gesture that extend outside the first visually delineated region; and,

for all touch gestures that are detected starting at a location on the touch-sensitive display with a beginning touch event that is located outside the first visually delineated region, not processing a respective touch gesture as input for the first visually delineated region.

10. The system of claim 9, wherein:

processing the additional touch events of a respective touch gesture that are a continuation of the beginning touch event and are made without interruption includes displaying a respective path, corresponding to the respective touch gesture, on the touch-sensitive display.

11. The system of claim 10, wherein the one or more programs include instructions for:

capturing and storing one or more paths, including the respective path, in the one or more active regions, excluding one or more portions of the one or more paths outside the one or more active regions.

12. The system of claim 9, wherein the one or more programs include instructions for:

prior to receiving the input that selects the first user interface element, displaying a user interface including the plurality of the visually delineated regions and the plurality of user interface elements on the touch-sensitive surface, wherein respective user interface elements of the plurality of user interface elements indicate whether respective visually delineated regions, of the plurality of visually delineated regions, associated with the respective user interface elements are selected.

13. The system of claim 9, wherein the first user interface element, distinct from the first visually delineated region, is displayed proximate to the first visually delineated region.

14. The system of claim 9, wherein, while the first user interface element is selected, the first user interface element is visually augmented to indicate its selection.

15. The system of claim 9, wherein the one or more programs include instructions for:

receiving second input selecting a second visually delineated region of the touch-sensitive display for activation based on selection of a second user interface element, of the plurality of user interface elements displayed on the touch-sensitive surface, associated with the second visually delineated region, wherein the first user interface element is distinct from the second user interface element; and

activating the second visually delineated region while maintaining the first visually delineated region as an active region.

16. The system of claim 9, wherein all the touch gestures are detected with one or more proximity sensors.

10

17. A non-transitory computer-readable medium having one or more programs stored thereon for execution by one or more processors of an electronic device with a touch-sensitive display, the one or more programs including instructions for:

concurrently displaying on the touch-sensitive display a plurality of visually delineated regions, including a first visually delineated region, and

a plurality of user interface elements, including a first user interface element associated with the first region; while displaying the plurality of visually delineated regions on the touch-sensitive display:

receiving an input that selects the first user interface element;

in response to receiving the input that select the first user interface element, activating the first visually delineated region;

while the first visually delineated region is activated:

for all touch gestures that are detected starting at a location on the touch-sensitive display with a beginning touch event that is located within the first visually delineated region, processing additional touch events of a respective touch gesture that are a continuation of the beginning touch event and are made without interruption, including touch events in the respective touch gesture that extend outside the first visually delineated region; and,

for all touch gestures that are detected starting at a location on the touch-sensitive display with a beginning touch event that is located outside the first visually delineated region, not processing a respective touch gesture as input for the first visually delineated region.

18. The computer-readable medium of claim 17, wherein: processing the additional touch events of a respective touch gesture that are a continuation of the beginning touch event and are made without interruption includes displaying a respective path, corresponding to the respective touch gesture, on the touch-sensitive display.

19. The computer-readable medium of claim 18, wherein the one or more programs include instructions for:

capturing and storing one or more paths, including the respective path, in the one or more active regions, excluding one or more portions of the one or more paths outside the one or more active regions.

20. The computer-readable medium of claim 17, wherein the one or more programs include instructions for:

prior to receiving the input that selects the first user interface element, displaying a user interface including the plurality of the visually delineated regions and the plurality of user interface elements on the touch-sensitive surface, wherein respective user interface elements of the plurality of user interface elements indicate whether respective visually delineated regions, of the plurality of visually delineated regions, associated with the respective user interface elements are selected.

21. The computer-readable medium of claim 17, wherein the first user interface element, distinct from the first visually delineated region, is displayed proximate to the first visually delineated region.

22. The computer-readable medium of claim 17, wherein, while the first user interface element is selected, the first user interface element is visually augmented to indicate its selection.

23. The computer-readable medium of claim 17, wherein the one or more programs include instructions for:

11

receiving second input selecting a second visually delineated region of the touch-sensitive display for activation based on selection of a second user interface element, of the plurality of user interface elements displayed on the touch-sensitive surface, associated with the second visually delineated region, wherein the first user interface element is distinct from the second user interface element; and
activating the second visually delineated region while maintaining the first visually delineated region as an active region.

24. The computer-readable medium of claim **17**, wherein all the touch gestures are detected with one or more proximity sensors.

* * * * *

15

12